



Government of Bombay

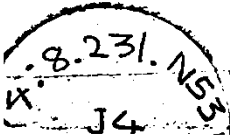
Co-ordination of Teaching and Rese  
Facilities provided by the Universi  
in the State

REPORT

OF

THE INFORMAL COMMITTEE

(G. R., E. D., No. USG. 5253, dated 30th November 1953)



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BOMBAY

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# REPORT OF THE UNIVERSITIES CO-ORDINATION COMMITTEE IN THE BOMBAY STATE.

## PART I.

### CHAPTER I.

#### INTRODUCTION.

(1.1) The question regarding an investigation into the working and financial position of the various Universities in the State of Bombay with a view to securing co-ordination of the teaching and research facilities and economy in the administration had been engaging the attention of Government for some time. Government, therefore, by Government Resolution, Education Department, No. USG-5253, dated 20th November 1953, appointed a Committee consisting of the following, to report to Government :—

Shri N. L. Ahmad, Principal, Elphinstone College, Bombay. *Chairman.*

Shri J. A. Taraporevala, Director of Technical Education, Bombay State, Bombay. *Member.*

Shri S. V. C. Aiya, Professor of Electrical Communications, College of Engineering, Poona. *Member.*

Shri N. R. Trivedi, Deputy Director of Education, Bombay State, Poona. *Member/Secretary.*

#### *Terms of Reference.*

(1.2) The original terms of reference to the Committee were as follows—

(1) to examine the lines on which the Universities in the Bombay State have organised and developed their teaching Departments since their establishment and how best to improve them, particularly with a view to securing the co-ordination of teaching and research facilities in the State ;

(2) to examine whether there has been any, and if so, to what extent overlapping and duplication in the work of the various Universities and suggest ways and means to eliminate wastage and to secure a proper co-ordination of the educational effort in the academic field ;

(3) to suggest the manner in which the staff of the Government Colleges should be utilised for post-graduate and research work conducted by the Universities concerned ;

(4) to explore the possibility of placing the superior teaching and research staff employed in Government institutions under the academic control of the Universities concerned with a view to the better and more efficient organisation of post-intermediate and research work ;

(5) to recommend whether any, and if so, what new Departments under the Faculties of Arts, Science, Technology, etc., should be established by the Universities concerned without increasing to any appreciable extent the financial liability of Government and to suggest whether any, and if so, which teaching and other Departments need to be discontinued by some of the Universities in cases in which such Departments have not been established under the terms of Endowment or Trust Funds; and

(6) to suggest the basis and the upper limits of grants for the next three or five years.

A clarification of the terms of reference (3), (4) and (6) was issued in the following form by Government on 16th January 1954 :—

No. USG-5253-U.

EDUCATION DEPARTMENT,  
Bombay Castle, 16th January, 1954.

To

THE CHAIRMAN,  
Universities Co-ordination Committee.

SUBJECT.—Universities :  
Co-ordination of the teaching and research facilities provided  
by the —

Sir,

I am directed to refer to items (3) and (4) of the terms of reference mentioned in Government Resolution, Education Department, No. USG-5253, dated the 30th November, 1953, and to state that the intention is that the Committee should go into and report on the question of how best Government could co-operate with the Universities in the matter of organisation and co-ordination of work of Government colleges and that of the Universities, avoiding at the same time administrative difficulties.

2. As regards item (6) of the terms of reference, it is not necessary for the Committee to go into the question of upper limits of grants to the Universities. The Committee may, however, examine the local and regional needs of each University in the field of higher education and research, how far these needs have been met by the present teaching staff in the University and the affiliated colleges and make a precise list of teaching appointments to be made by the University for post-intermediate and post-graduate teaching and research on a five year basis.

Yours faithfully,

(Signed) A. L. DIAS,  
Secretary to the Government of Bombay,  
Education Department.

The original Government Resolution appointing the Committee and the subsequent letter clarifying the terms of reference are reproduced in Appendix I.

#### PROCEDURE OF WORK.

(1.3) The Committee held its first Meeting at the Elphinstone College, Bombay, and discussed the terms of reference. It was decided to call for certain information from the different Universities in the State of Bombay. For this purpose, proformas as shown in Appendix II of this Report were prepared and approved. These proformas were sent to the different Universities with a covering letter on 17th December, 1953, and the Universities were requested to supply the necessary information by 20th January 1954. While some of the Universities supplied a good part of the requisite information, several Universities experienced difficulty in complying with our request by the due date. In view of this fact, it was decided to consider the cases of the Universities in the order in which the information was received.

We also addressed a circular letter to the Principals of all Government Colleges on 17th December, 1953, requesting them to give us the benefit of the views of their institutions on the manner in which Government Colleges could co-operate in the work of the Universities and requested them to send their replies by 20th January, 1954.

(1.4) At the second Meeting of the Committee held in Bombay on 23rd December 1953, the procedure to be followed for assessing the information received from the different Universities was discussed. Correct assessment of the information supplied could only be obtained by visiting the Universities and having an on-the-spot discussion with the representatives of the Universities. Accordingly, a tentative programme of visits to the different Universities was drawn up and sent to the Universities. The authorities of the Universities were requested to designate a person or persons who could meet us on their behalf and discuss with such points as might arise after verification of the information supplied.

(1.5) We visited the Universities and went round their Departments, some of their recognised institutions where post-graduate work was done and some of the Government Colleges at the University centre. The detailed programme of our visits to the Universities, the names of their representatives who met us, and the details of the Meetings of the Committee are given in Appendix III.

(1.6) In the course of our inquiry and discussions with representatives of the Universities, we discovered several discrepancies between the information supplied and the actual facts. We further noticed that some additional information yet remained to be supplied. We appreciated the difficulties of the Universities in complying with our requests. According to the procedural requirements of any University, the material has to be collected, placed before a Committee, and then before the Syndicate of the Executive Council for approval. It is only after this is done that the material could be supplied officially to us by the Registrar. All these procedural requirements take time. In view of this we requested the representatives of the Universities whom we met, to supply us the additional information or the modified information as soon as possible. Having regard to the fact that we had to prepare our report and submit it to Government by a specified date, the Universities concerned were asked to supply the outstanding information before 30th April 1954. Factual statements in the Report, therefore, correspond to what existed prior to 30th April 1954.

#### PREPARATION OF THE REPORT.

(1.7) In preparing the Report, the following procedure has been adopted. In the first part of the Report, the development of the Universities, the extent of usefulness of Government Colleges for University work and the principles for the assessment of grant-in-aid have been discussed. Except where necessary, we have not made any specific reference to any one University. In these discussions, we have taken full account of the fact that the Act of Incorporation of a University as passed by the State legislature is the basis for the organisation and development of teaching and research work within the University. The first part is thus a general examination of what has been done and what can be done in the Universities and the Government Colleges.

(1.8) In the second part of the Report, we have devoted a separate Chapter to each University and examined its specific requirements on the basis of the principles enunciated in the first part. We have also considered in such Chapters the role of the Government college or colleges situated within the University area.

Our discussions with the representatives of the Universities were of an informal character. We have made use of the views expressed by all persons who met us, but we have not followed the usual procedure of recording evidence and getting the record verified and signed by the persons concerned.

(1.9) We have received a large volume of information from the different Universities in reply to our questionnaires and in the form of filled-in proformas. All these run to several hundreds pages. We felt that no useful purpose would be served by adding all this information as a separate part of this Report. We have abstracted from this data as much material as is necessary for Part I and Part II of our Report. The complete information in the form of separate files for each University has been handed over to the Director of Education for record and future reference, when necessary.

#### ACKNOWLEDGEMENT.

(1.10) It would have been impossible to complete our enquiry, but for the valuable co-operation we received from all the Universities in the State of Bombay. We gratefully acknowledge the assistance they gave us in carrying out our work. We also acknowledge with thanks the co-operation we received from the Director of Education and his office at Poona. Our thanks are also due to the staff placed at our disposal for the work of the Committee.



## CHAPTER II.

**Growth and Development of the State Universities.**

## UNIVERSITY EDUCATION UP TO 1948.

(2.1) The first University to be established in Western India was the University of Bombay in the year 1857. The constitution and powers of this University were modified from time to time. Prior to the establishment of the regional Universities, the University of Bombay was functioning in accordance with Bombay University Act, IV of 1928, modified in minor details from time to time. According to this Act the University enjoyed a large measure of autonomy. The University was empowered to make provision for post-graduate teaching and research. During the period from 1928 to 1948, the University of Bombay was the only University in the State and its jurisdiction extended over the whole of the present State of Bombay, the State of Saurashtra and the then Province of Sind. The University functioned largely as an examining body and very little attention was given to the organisation of post-graduate teaching or research. The then Government gave meagre grants to the University, which had to depend largely on its excess of income over expenditure on the Matriculation examination and on donations from the philanthropic public of Bombay for its maintenance and development.

(2.2) The University of Bombay made a beginning in post-graduate teaching and research by establishing the Sociology Department in the year 1918, and the Economics Department in 1921. This School of Economics and Sociology started work by enrolling students for the Master's and Doctor's degrees by research, in the two subjects. Later, the School undertook the responsibility for giving systematic post-graduate instruction in Economics and Sociology for the Master's degree by papers. A section in Agricultural Economics was added in 1945. The Department of Politics and Civics was added to the School in 1948. A teaching Department of Statistics was instituted by the University of Bombay in September, 1948. In the year 1934, a Department of Chemical Technology was started. This Department has expanded considerably. The Department has been receiving grants from the State and Central Governments and has been well endowed.

(2.3) Apart from the facts stated above, post-graduate teaching and research received very little attention, due mainly to want of finance. The University concentrated its attention mainly on affiliating colleges and conducting examinations in the different faculties. In fact, it must be acknowledged that the facilities for post-graduate education and research in the State of Bombay were meagre. The Board of Post-graduate Studies of the Bombay University formulated certain sets of qualifications for the recognition of teachers for post-graduate teaching or guiding research. The maximum undergraduate work that could be done by a post-graduate teacher was also laid down. Students were required to be registered under a recognised post-graduate teacher for taking post-graduate degrees by papers or by research. Such recognised teachers were expected to guide the student in his reading and assist him by discussions, etc. in his work. Where laboratory training at the post-graduate level was necessary, the guide had to supervise the laboratory work of the student. Before recognising a person as a post-graduate teacher for a degree by papers or by research, the University took particular care to find out whether the necessary library and laboratory facilities were available at the place to which the teacher was attached.

(2.4) At a later stage, an attempt was made to provide courses of lectures on an inter-collegiate basis in the Faculties of Arts and Science at large centres like Bombay or Poona. Recognised teachers gave courses of lectures on certain topics included within the course. The whole course was not necessarily covered, nor was any attempt made to enforce systematic arrangement of the lectures. Thus it could happen that for a certain subject in a certain year, there would be practically no lectures. In fact, the whole organisation functioned on a voluntary basis and strict enforcement of a planned and organized time-table in conformity with the courses laid down was impossible.

(2.5) In the field of research, a teacher could take under him a student for a Master's or a Doctor's degree and permit him to submit a thesis for the degree when he was satisfied with the work of the student. There was no significant attempt by the University itself to provide facilities for research, but where these were provided by affiliated colleges and were approved, some research work was done. The creation of research facilities depended more on the provision that affiliated colleges or other institutions could make rather than on any planned and concerted attempt by the University itself. Naturally, therefore, same or similar research facilities could grow in more than one place and there were possibilities of avoidable duplication.

(2.6) To a very large extent, the standard attained at any examination depends on the courses laid down, the manner of instruction and examination. In addition, the atmosphere in which the student is made to work, study and think is also important. The syllabi for the different post-graduate examinations were heavily stereotyped and a large number of books were "recommended" for reading. The examination scheme was the same for all the post-graduate students of the University. The standard of instruction for a degree by papers at Colleges outside Bombay where the number of teachers available was small, was necessarily low. Consequently, even if some higher standards were attempted by some colleges, the general level of examinations had to be in keeping with the lower standard elsewhere.

(2.7) Before the regional Universities were established in 1948 and subsequent years, post-graduate teaching and research had grown throughout the State of Bombay in an unplanned manner on the lines indicated above. There was no provision for systematic instruction in each one of the papers specified for a particular examination. There were no tutorials as such. The attendance at such of the lectures as were arranged (and they were few) could not be enforced with the strictness necessary. The lectures being few and far between, the post-graduate course by papers could be taken up more or less as a part-time course. Some of the students were reduced to this alternative due to their financial circumstances, as no scholarships were available. Library facilities varied considerably from place to place.

#### UNIVERSITY EDUCATION AFTER 1948:

(2.8) The establishment of the Regional Universities as a measure of decentralization commenced in the year 1948 with the passing of the University of Poona Act in March, 1948 (Bombay Act XX of 1948). The Karnatak University Act was passed in May, 1949 (Bombay Act XX of 1949). The M. S. University of Baroda was established in May, 1949 (Baroda Act No. XVII of 1949), the Gujarat University and the S. N. D. T. Women's University Acts were passed in November, 1949 (Bombay Acts L and LI of 1949). Consequent on the establishment of these regional Universities, the Bombay University Act was amended. The new Bombay University Act (Bombay Act No. XXXI of 1953) has just come in to force and the different authorities of the University are being constituted in accordance with the requirements of the new Act.

(2.9) These new Acts of Incorporation of the different Universities are not very similar and the provisions made vary from Act to Act. This is probably due to the fact that the Acts have been framed on the basis of the recommendations of the different Committees appointed for the purpose.

(2.10) The M. S. University of Baroda is a Unitary University and is directly responsible for teaching, instruction and examination at all stages of University education including the Intermediate stage. The University of Poona has a direct responsibility for post-intermediate education. The University of Bombay can, after making appropriate Statutes, co-ordinate and control post-intermediate education in the Ahmedabad area. To the extent we have indicated above, the colleges including Government Colleges concerned become constituent colleges of the University. A considerable measure of academic control by the Universities over the activities of these colleges is contemplated in the Acts and the Universities concerned have full powers to co-ordinate and regulate post-intermediate education. The extent to which this is done effectively, depends on the University itself.

(2.11) In all Universities, post-graduate education and research are the direct responsibilities of the Universities. This has been clearly envisaged in the new Acts and the main function of the Universities is to organise and develop post-graduate education and research in the best possible manner. While the Bombay and Poona Universities have direct control of post-graduate education and research, provision for the same in the Gujarat and Karnatak University Acts is slightly different. The two Universities can arrange for post-graduate education and research or permit its conduct in affiliated colleges in such subjects and in such manner as may be prescribed by Statutes. It is thus open to these Universities to lay down a strict set of regulations, regarding the requirements of teachers, library and laboratory facilities and the manner of instruction at the post-graduate level, so as to co-ordinate, supervise and control effectively, the conduct of post-graduate teaching and research in affiliated colleges and recognised institutions. It is thus within the powers of a University to avoid waste and unnecessary duplication of educational effort within the area under its territorial jurisdiction. The Baroda University, being a Unitary University, controls teaching and research at all stages. The S. N. D. T. University is empowered to conduct instruction, teaching and training beyond the Entrance examination and all post-graduate instruction, teaching and training in institutions or colleges recognised by, affiliated to, or conducted by, the University, through teachers appointed or recognised by the University in that behalf.

#### PRESENT POSITION.

(2.12) The new Act for the University of Bombay has recently come into force and it will take some time for the University to organize its post-graduate teaching and research and co-ordinate its post-intermediate education in accordance with this Act. Consequently, the state of affairs prevailing in the present Bombay University area is the same as detailed earlier in this Chapter. As for the other Universities, by an appropriate Section in the transitory provisions of the Acts, it was made obligatory for the Universities to provide instruction, teaching and training and examination facilities as under the University of Bombay till students completed their courses. This provision implied that the courses of studies and facilities for teaching, training and examinations could not be modified by the Universities at least for two years after incorporation. The Universities have, therefore, had less than three years in which to organise and develop

them selves, although it cannot be denied that planning could have been done to a considerable degree during this period. It must be remembered that all these new Universities had to take over certain legacies from the old traditions prevailing in their area. Thus although attempts could be made to change the structure and organisation of post-graduate teaching and research, they could not possibly be of a drastic character. The changes had necessarily to be gradual. The University of Poona, has arranged for systematic lectures for post-graduate classes and attempted to provide the necessary laboratory instruction. The number of lectures provided for some Papers is not quite adequate. Three tutorial per term per paper are also provided. On the Arts side, most of the Post-graduate teaching is done by the contributed teachers, while on the Science side, the University has opened its own laboratories. A number of students still appear to be taking the post-graduate course by papers, as something like a part-time course. In the University of Baroda, the University itself has organised post-graduate courses for certain degrees. In the Karnatak University, attempts have been made to impart post-graduate instruction at two centres, viz., Dharwar and Belgaum, by the arrangement of a systematic series of lectures. The Gujarat University has made some arrangements for post-graduate lectures, but they are mostly on lines very similar to those that existed, when the Colleges in the area were affiliated to the University of Bombay. The Authorities of the Gujarat University are now planning arrangements for post-graduate teaching on a zonal basis. Such arrangements are not yet complete, but we understand that they are likely to be finalised in the near future.

2.13) The statements, we have made above, have particular reference to the subjects in the Faculties of Arts, Science, Commerce and Education. In Professional subjects like Agriculture, Engineering and Medicine, there does not appear to be any systematic planning for the work in a way different from what existed during the time the Colleges were controlled by the University of Bombay. It appears to us that for these subjects, the Universities are probably looking forward to Government taking the initiative in Government Colleges.

#### UNIVERSITY DEPARTMENTS.

(2.14) All the new Universities, except the Gujarat University and the S. N. D. T. University, have instituted several Departments in different Faculties and also recruited some staff. Since the University of Baroda had to take over and incorporate within itself the Colleges existing in the City of Baroda, the University has a very large number of Departments. In addition to the Departments thus constituted, the University has opened new Departments in certain new Faculties. In the University of Poona, Departments have been instituted for all the subjects that are taught at the post-intermediate or post-graduate level. For some of these Departments, the University staff has been appointed. While for the others, work is done entirely by contributed teachers who are employees of the Constituent Colleges. One of these contributed teachers is appointed the Head of the Department and is given the designation of Professor-in-charge. In the Karnatak University a few Departments have been instituted and teachers appointed, but in the remaining subjects post-graduate instruction is being given by qualified teachers in affiliated colleges. The Gujarat University proposes to open a School of Social Sciences and a Department of Gujarati. Apart from this, Post-graduate teaching and Research appear to continue according to the old tradition in the case of the Gujarat University. In both Karnatak and Gujarat Universities, the Statutes necessary for organizing post-graduate teaching and research and the Statutes authorising affiliated colleges to conduct such work are

yet to be made. Although the Gujarat University had powers to take over, control and co-ordinate post-intermediate education in the Ahmedabad area, it has not done so and there does not appear to be any immediate prospect of the University undertaking this work. The S. N. D. T. Women's University is still in a formative stage and post-graduate teaching and research may have to wait for some years to come.

#### APPOINTMENTS.

(2.15) For the Departments constituted, each University has recruited Professors, Readers or Lecturers in accordance with the provisions of the Act. Owing to the rapid development since Independence, there has been a great demand for qualified personnel not only for employment in the Universities, but in several Governmental and Semi-Governmental organizations. Consequently, there is a real dearth of qualified personnel. Any Selection Committee appointed can only consider the applications received and recommend the best applicant. But the best person so recommended may not always be an ideal choice and may not conform to the actual standards of qualifications and experience to be expected in normal times. In such cases, if a post is filled on a permanent basis, it may become difficult for a University to change the person till his retirement. Having regard to this difficulty in the present conditions in India, some Universities have employed retired personnel.

(2.16) In several Universities, difficulties have been experienced by way of accommodation and equipment required for their new Departments. Some improvisation has been made and work is being carried on. The library facilities provided by the Universities are inadequate and some of the Universities have housed their libraries in improvised rooms. The position regarding the library facilities in affiliated and constituent colleges and recognised institutions is much worse. Top priority, in any plan of University reconstruction, should be given to the provision of first class Libraries with study rooms, and reading rooms in all the Universities, Colleges, and recognised institutions.

#### CONSEQUENCES OF THE DUAL ROLE OF SOME UNIVERSITIES.

(2.17) Except for the University of Baroda, all the other Universities have the twin functions of affiliation and teaching. This dual role creates a certain number of difficulties. Thus, if the standard of post-intermediate education in the University Town is raised by effective co-ordination, the same high standard will have to be enforced in affiliated colleges outside. Owing to financial and other difficulties the mofussil colleges may find it difficult to raise themselves up to such standards. Similarly, post-graduates teaching has to be permitted at Centres outside the University area, especially if they did exist prior to the incorporation of the new University. The limitations of the mofussil centres may have an indirect effect on the organisation of post-graduate teaching in the University area. This difficulty can only be overcome if the University concerned faces its responsibility squarely and finances post-graduate education at mofussil centres where this facility is needed. Probably due to financial difficulties, the Universities have not as yet commenced systematic financing of post-graduate education at mofussil centres and arrangements at such centres have been made largely on a basis of compromise.

(2.18) There is yet another difficulty that faces the University. The University Professor or Reader by virtue of his office, becomes the Head of his Department and is responsible for organising and directing the teaching work of the Department.

It may happen that a teacher in an affiliated or constituent college is better qualified to carry on this work. Such a person, however, has to work under the directions of the teacher appointed by the University. Apart from denying opportunities to the individual, such a situation is likely to affect adversely the maximum utilisation of the best available staff. Provision has been made in the Acts of several Universities "to recognise a member of the staff of an affiliated college, or recognised institution as a Professor, Reader, Lecturer or Teacher of a University and withdraw such recognition". A desirable step for the Universities, which have this power, would be to recognise such teachers in constituent or affiliated colleges as Professors or Readers, make grants to such colleges to relieve them from some of their work in the College and utilise them for the work of the University. Only after taking this step, the necessary additional staff should be recruited by the University. By this process the best available man gets recognition as a Professor or Reader and gets opportunities for doing the work of the University. It appears to us that this provision in the Acts of Poona, Gujarat and Karnatak Universities has not, so far, been utilised.

#### POST-GRADUATE TEACHING.

(2.19) At present the Universities have generally concentrated on organizing post-graduate teaching for M.A. and M.Sc. degrees. The rules made by the different Universities vary. Thus in the Poona University, arrangements have been made for one lecture per week per Paper for the M.A. degree. In the University of Baroda, the number of lectures per week per Paper varies from subject to subject. We consider that this question should be examined in an integrated manner. Similarly it appears to us that the Universities have not made adequate provision for the enforcement of discipline among the Post-graduate students, in their day-to-day reading and study. It is essential that these whole-time post-graduate students are given regular guidance about their reading and they should be required to put in regular hours of work. This is only possible if due provision is made for continuous contact between the teacher and the student by way of tutorials, seminars and library work. At present a programme of post-graduate lectures is drawn up and put up on the notice Board. A certain minimum attendance at these lectures is expected and certificates of attendance are necessary conditions for appearing at the Examination.

(2.20) The fees charged per student for a post-graduate course varies from University to University and although a beginning has been made for the provision of scholarships and freeships to post-graduate students, adequate and systematic provision in this respect does not seem to have been attempted yet.

#### POST-GRADUATE RESEARCH.

(2.21) Qualifications for teachers, who can guide students for Research Degrees, have been laid down by the different Universities and the recognised teachers are permitted to train students for the Master's or Doctor's Degrees. In some cases, the minimum qualifications required for a student for being enrolled as a research student have been laid down. While in others, no such specific provision has been made. It is very important that a certain degree of screening is applied before admitting students for Research Degrees.

University Departments have also commenced enrolling students for Research Degrees and attempts have been made to admit all applicants for the Research Degrees rather than to emphasise quality. Arrangements for periodic attendance at advanced lectures and seminars do not appear to have received the emphasis they deserve, anywhere.

## CHAPTER III.

## Organisation of University Education.

## INTRODUCTION.

(3.1) There is ample material in the reports submitted by the several University Enquiry Committees and it could with profit be accepted for the organisation of University Education. The latest recommendations are contained in the Report of the University Education Commission presided over by Dr. S. Radhakrishnan. The recommendations made in several of these Reports can be classified broadly into two categories :—

- (a) Those which require financial assistance ;
- (b) Those which require better utilisation of the existing teaching and tutorial staff.

We appreciate that the Universities are faced with difficulties in implementing some of the acceptable recommendations in the first category. But we cannot see why recommendations which fall in the second category should not forthwith be examined and implemented to the fullest extent. In this connection, reference is invited to Chapter IV of the Report of the Radhakrishnan Commission.

## WORK AT THE UNIVERSITIES.

(3.2) It is necessary that the student and the teacher work together for a certain minimum number of days in a year and for a certain minimum number of hours each day. This constitutes the crux of University Education. It has been stated in the Radhakrishnan Commission's Report that the number of working days in the Universities in India is insufficient. One cannot escape the conclusion that there is less work done at our Universities as compared to Universities elsewhere. Most of the well known American Universities have at least 180 or more working days on which formal lecturing and laboratory work goes on. In addition, there are Examination days. In British Universities, if account is taken of provision made for work during the long vacation, the number of working days per annum will be about the same. The Radhakrishnan Commission has strongly recommended that the minimum number of days during which lecture and laboratory work is done should be at least 180. If allowance is made for a fortnight for the holding of the Terminal, Preliminary and other Examinations and a week during which there is suspension of lecturing work due to Social Gatherings, Games and Sports, there must be at least 200 days, excluding holidays, in the two terms of the academic year. It is unfortunate that the number of term days in our Universities is very much less than this. The two terms in the Universities in this State roughly comprise 32 weeks including holidays and examination days. Thus effective teaching and laboratory work is done for 160 days or even less. It has been argued that it is not possible to increase the number of working days in a year in our Universities, as local, sectional and other public holidays have to be given and the duration of the academic year is regulated by the date of declaration of the S. S. C. Examination results and the date of commencement of the S. S. C. Examination. It is true that admissions to the First Year Classes can only be made after a week or two after the declaration of the S. S. C. Examination result. But that should not prevent the Universities from starting all their other classes much earlier. There is, therefore, no sufficient excuse for not commencing the term for Intermediate, Post-Intermediate and Post-graduate classes as early as the 1st of June. The date of commencement of the

first term for the First Year Class may be deferred till the 15th of June. Similarly, we do not see any strong reasons for not curtailing the Diwali and Christmas holidays to four weeks. The number of sectional and minor holidays during term time should be drastically cut. In fact, we would suggest that there should be no interruption of University work during the term and that holidays, except Sundays, should be completely eliminated. We, therefore, strongly recommend to Government that they should make it a condition for the award of grant to a University that its terms should be rearranged in such a way that there are at least 180 actual working days, exclusive of Examination days, Tours and days when lectures are suspended due to extra-curricular activities.

(3.3) The next question is the maximum utilisation of the working days in a year. There have been wide variations in the number of hours for which the teacher and students are together. This question has been discussed by the Radhakrishnan Commission. They suggest that every teacher should be on duty at a University for six hours a day. He may either teach or work in the laboratory or the library. This recommendation may, as the Report says, "Be repugnant to some of the teachers, but there is no doubt that some kind of check is necessary for teachers who do not realize their obligation to engage in Research and keep themselves up to date in their knowledge". This question is closely linked up with proper provision of Library facilities in the Colleges and Universities. The facilities provided at present are totally inadequate and detailed remarks on this point will be found later in this Chapter.

(3.4) In the planning of time-tables for the teachers and the students, care should be taken to see that each teacher is available to the students for at least two hours a week in the University or College outside the students' time-table. The availability of the teacher to groups of students at specified hours on specified days should be invariably made known to the students in advance. With this provision, it is possible for the students to meet their teachers, discuss with them their difficulties, seek their advice for wide reading and plan their studies.

#### SPHERES OF UNIVERSITY EDUCATION.

(3.5) As envisaged in the Acts of Incorporation of the different Universities in this State, each University is expected to provide facilities or make arrangements for instruction and teaching at the following stages:—

- (a) Intermediate Education ;
- (b) Post-Intermediate Education ;
- (c) Post-Graduate Education ; and
- (d) Research.

(3.6) *Intermediate Education.*—The Intermediate stage lays the foundation for later University Education. Deterioration of standards at this stage is bound to have undesirable consequences for the organisation and development of teaching and research facilities that come later. At present, Intermediate Education is not the direct responsibility of any of the Universities in the State, except the M. S. University of Baroda. Most of the Universities have, therefore, been content with laying down courses of instruction and making arrangements for the conduct of Examinations. It is within the powers of the Universities to lay down certain standards for teaching and tutorial work at the Intermediate stage as a condition of affiliation. Such conditions involve financial commitments, which may not be within the means of some affiliated colleges. In view of such considerations,



the Universities have not gone far in this matter. The introduction of regular tutorials at the Intermediate stage will tend to raise the standard of education. A beginning in this direction may perhaps be made by Government by awarding some additional grant to the institutions, which arrange for such tutorials. Even a small token grant may lead to a beginning in this direction.

(3.7) *Post-Intermediate Education.*—This stage is spread over a period of two years in all Faculties, except Engineering and Medicine in most of the Universities. It has been contended that within a period of two years, the student is not able to attain a standard necessary for undertaking research and higher work. To meet this objection, the Poona University has introduced a three-year Honours course in the Faculty of Science. But it also continues to make provision for a two-year M.Sc. course for the students doing the B.Sc. (General) course. In the Arts and Science Faculties, the post-intermediate courses are of two types—one called the general course, in which a candidate has to offer three or four subjects to qualify for his degree and the other called a special course, in which some degree of specialization is attempted in one major subject. This special course is also called the Honours course in some Universities. The first degree in the Faculty of Law is awarded after two years' training in Law after graduation but in the case of students entering the Law College immediately after the Intermediate Examination, an additional year's course in the humanities is provided. The duration of the Post-Intermediate course in Engineering is generally three years in most of the Universities. In the Faculty of Medicine, two of the Universities, viz., Bombay and Baroda, have adopted a four and a half-year course and provided for a one-year internship, while in other Universities the courses are of 5 years' duration.

(3.8) We have no desire to make any recommendations which may be construed as affecting the autonomy of the Universities. But it is desirable that there should be a certain degree of uniformity in the State of Bombay, so far as the duration of courses for the first degree in a faculty is concerned. It may, perhaps, be possible to get such uniformity by mutual agreement between the Universities through the Board of Vice-Chancellors.

(3.9) In order to make post-intermediate instruction effective, a certain amount of personal attention is necessary. This can only be given in tutorials. Tutorials serve the two-fold purpose of making student work and think for himself and of enabling him to know exactly where he goes wrong. This kind of personal attention can only be given in tutorials. There has been an attempt to combine both tutorials and lectures in some Universities, especially when the number of candidates for a subject is small, by increasing the number of formal lectures. In our opinion, this does not serve its purpose. A formal lecture has its own value as it puts the students to a test by making him follow a series of well arranged and concentrated set of arguments. Such formal lectures cannot, therefore, take the place of tutorials without losing their training potential. On the other hand without proper tutorials, the student is unable to assimilate fully the instruction imparted at formal lectures. It is, therefore, desirable to attempt a harmonious arrangement of lectures and tutorials.

(3.10) Post-Intermediate Education is the direct responsibility of the Universities of Poona and Baroda. Bombay has powers to co-ordinate and regulate Post-Intermediate Education. The Gujarat University can take over Post-Intermediate Education in the Ahmedabad area. The S. N. D.T. Women's University conducts Post-Intermediate courses. It should be possible for these Universities to provide

for better organisation of Post-Intermediate Education. Some steps have been taken in this direction by some of them and they will be discussed in detail in the appropriate Chapter.

(3.11) Arrangements for systematic tutorials at the Post-Intermediate stage should be made immediately. The tutorial exercises must be read and corrected by a responsible teacher, and should be certified by the Head of the University Department or the Department of the College at the end of the year. This tutorial work should carry a credit of 100 marks separately at the University Examination and passing under this head should be compulsory. Unless these steps are taken, the rigour and rigidity that should accompany tutorials will not be there and there is likely to be laxity on the part of the teachers and the students alike.

(3.12) So far as Post-Intermediate lectures are concerned, there can be considerable improvement in the standard of lectures, if all the teachers are required to write out summaries of their lectures. This written document should always be made available to the University or College authorities, as and when necessary. Writing crystallizes ideas and increases the total content of matter that can be put across in a systematic manner. Insistence on the planning and writing up of summaries of lectures is one of the first steps that can be taken to improve the tone and quality of lectures. Further, it has another distinct advantage. If at a later stage, instruction is to be imparted in one of the Indian Languages, the problem before the teacher would be one of just developing and translating the material which has been collected by him. In several overseas Universities, this habit of writing up of lectures has led to the production of valuable text-books or even advanced treatises.

(3.13) *Post-Graduate Education.*—Post-Graduate degrees by papers can be taken by students in several Faculties in most of the Universities. As we have remarked earlier, there has been a tendency in our State to take Post-graduate education more or less as a part-time course. This tendency should be entirely eliminated. The post-graduate stage is generally referred to in some countries as the Graduate School. At this stage, it is imperative that special emphasis should be laid on training for original thinking and methods of research and only those who show an aptitude for such training, should be admitted to the privileges of post-graduate education. A certain amount of screening at the time of admission is necessary at all stages of University Education. But such screening at the intermediate or post-intermediate stage may be construed as denying opportunity for higher learning to those who want it. Moreover the administrative problems that emerge in any scheme of screening for admissions to intermediate and post-intermediate classes are so very complicated that we do not consider it advisable, at present, for Universities or Government to introduce a rigid system of screening at those stages, apart from the limitation set by the available teaching laboratory and library facilities. However, at the post-graduate level, we have not, so far, made any great progress in our organization of teaching work. The number of students seeking admission to post-graduate courses is also not very large. Therefore, screening for admission can best be tried and enforced at the post-graduate stage. We, therefore, strongly recommend that the Universities should be asked to be very careful in enrolling students for post-graduate degrees. As a general rule, those who do not take their degree in the II class, should not be admitted. Exceptions may be made in hard cases only after getting a report from the Head of the Department concerned, who should be required to certify that he has examined the person concerned and that, in his opinion, the person is fit to receive post-graduate education. The lowering of the standards at the post-graduate stage is very largely due to indiscriminate admission of a large number of students to post-graduate courses. In addition to initial screening at

the time of admission; some regular scheme of reading and writing has to be planned for each student at the post-graduate stage on an individual basis. The tutorials, we have referred to earlier, should be properly organised and non-attendance at tutorials should involve the cancellation of the Term kept by the student. Tutorials should be given adequate recognition at the time of the University examination. The tutorials at this stage should be conducted by teachers recognised for post-graduate teaching and there should be at least one tutorial every week. In addition, provision should be made for lectures from experts and seminars, whenever possible, to enable post-graduate students to profit by contacts with other workers in the field.

(3.14) *Research Students*.—One of the Principal activities by which the stature of a University or its Departments is judged is by the volume and quality of the Research done at the Universities. Research training includes training in the art of original thinking, original methods of synthesis and analysis and developing the mind to take decisions on problems of a complicated nature. Research facilities are usually costly. It is necessary that a careful selection is made of students desiring to enroll themselves for research degrees. Apart from the student having high academic qualifications, it is necessary that he should be subjected to a searching interview by the Head of the Department and it is only after such a person gives a certificate of fitness that a student should be admitted for a research degree. We anticipate that such a process will lead to a sizable reduction in the enrolment of research students. This is all to the good because the fewer the students, the better the attention they will get from their guides. Further with the limited funds available, better facilities can be given to the few students who are admitted. It is clear that it is neither necessary nor feasible due to limited funds that every University should undertake to provide post-graduate instruction and research training in a variety of subjects in every faculty. This point required to be impressed upon the Universities in the State in the interest of their own balanced development.

(3.15) In the sphere of research training, it is necessary that a detailed scheme of periodical checks on the progress of the student is introduced by the Universities. Thus, it may be desirable to require a research student to submit a detailed report of the work he has carried out once a term through his Professor, who should be required to pass his own remark on the progress of the student. If the progress is unsatisfactory, the enrolment of the student for research should forthwith be cancelled. It is to be hoped that in the near future the authorities in the different Universities will provide for these requirements in a suitable manner. It may also be desirable to arrange for short courses of advanced lectures by distinguished scholars in the University itself or by visiting Professors for the benefit of the teachers and the research students. Any University that comes forward with a concrete scheme in this direction, should receive the fullest encouragement. In order to enable the student to take the fullest possible interest in his research and devote himself entirely to research, it is necessary that provision should be made on a very liberal scale for scholarships during the period of his research training and for fellowships after his training is complete, so that he continues his research work, till he finds employment suited to his qualifications and his interest. A detailed scheme of scholarships and fellowships will be discussed later in this Chapter.

(3.16) There is at present an awakening for the need for research in our Country, not only in the fields of pure and applied Sciences, but also in the sphere of Social Sciences. In all such activities, persons with research training would be most useful. In fact, the comparatively slow pace at which our planning is progressing

is, perhaps; largely due to lack of adequate number of highly trained persons. Therefore, no amount of money or effort utilised for this sphere of University can be activity considered excessive.

#### LIBRARY.

(3.17) One of the basic requirements of University Education is cultivating the library habit. In some of the continental Universities, it is considered an essential part of the training of a University student that he should be in a position to list up quickly all the references on any topic. Library facilities both from the point of view of books, journals, reading space and guidance in the library, have not been adequate in most of our Universities. Further, library work can only be done after the regular college hours. It is, therefore, necessary to keep the libraries of the Colleges or the Universities open for many hours outside the regular college hours. We see no reason why arrangements should not be made to keep a College or a University library open for 12 to 14 hours a day, by arranging for suitable shifts for the staff. In each library, sufficient accommodation should be provided for the students to sit and consult books or references. University Libraries should provide books and journals in separate sections for the branches in which specialisation is offered. In this respect, most of our Universities and Colleges are deficient and it is essential to lay down a minimum standard of library facilities for a College as well as for a University. In our Universities and Colleges, the practice of lending books to students and the staff is prevalent. A large number of books thus get locked up and although not actually in use by the borrower concerned, they are out of use for others. It is desirable that this practice should be gradually eliminated. This will foster healthy library habits in staff and students. Every University library should provide a big hall for general readers and sufficient number of cubicles for advanced students and research workers. The provision of comfortable chairs and tables and proper lighting arrangements should be made. Trained library staff should be available to enable a reader to get the books and journals wanted by him without undue delay. The chief University Librarian should be a sufficiently qualified and experienced man in library lore competent to advise students in methods of reading and reference. Every college library should have the same facilities as described above, albeit, on a smaller scale.

#### THE TEACHER.

(2.18) In any system of education it is not the buildings, the libraries, the rules and regulations of the University that matter so much as the teacher. Recruiting the best type of teachers for imparting higher education is a primary responsibility not only of the Universities, but also of Government. If a person with really adequate qualifications and personality and the necessary interest for the work is not available, a post should not be filled. If such a post already existed and it cannot be thus filled, a Department may be closed. No better machinery can be devised to instil a sense of indiscipline and frustration among the students than by recruiting the wrong person as a teacher. We, therefore, attach considerable importance to the question of the teacher, his qualifications, his terms and conditions of service and last, but not the least, the methods or machinery for testing how useful he is as a guide and instructor of the student.

(3.19) At present various designations are being used for the teachers of the Universities and the affiliated colleges. A distinction is also made in the qualifications required for a teacher of a particular class in an affiliated college and in the

University Thus a person holding a II class Master's degree and five years' experience may rank as a Professor in an affiliated college, while very much higher qualifications may be expected of a Professor occupying a chair in the University. We strongly hold the view that in every University, each designation must correspond to the same set of qualifications, regardless of whether the person is engaged in an affiliated College or a recognised Institution or the University. Steps may gradually be taken to achieve such uniformity. There has been considerable variation even in the qualifications required for certain posts from subject to subject, from faculty to faculty and from University to University. Thus a person who has never done any research, can be recognised to guide research work in certain subjects in some Universities. It is common sense that persons who have not done research work themselves, should not be permitted to guide research. It is our view that certain basic minimum standards should be applied to each category of post. Slight variations from University to University should always be permissible, but these variations must be above the basic minimum. We consider the following as the minimum qualifications for the several categories of teachers in the University itself or in an affiliated college :—

(a) *Professor*.—He must be a person who, in addition to holding high academic qualifications, has published papers of acknowledged merit and has guided research students for research degrees or is at least actually guiding research students in addition to taking post-graduate lectures.

(b) *Reader*.—A Reader must be a person who has qualifications similar to those of a Professor, except that he may not have as large a volume or as good a quality of published research work to his credit. In fact, it is desirable to appoint Readers in the Universities and absorb them later as Professors, when they acquire eminence in their subjects.

(c) *Assistant Professor*.—An Assistant Professor must be a person who has high academic qualifications and some research or professional experience and some teaching experience. Such a person should be in a position to lecture to post-graduate classes.

(d) *Lecturer*.—A Lecturer must be a person who has high academic qualifications and some teaching, professional or research experience. He should be able to lecture to post-graduate classes in subsidiary subjects but his main work will be with the under-graduate classes.

(e) *Junior Lecturer or Tutor*.—A Junior Lecturer or Tutor must hold at least a II class post-graduate degree or an Honours degree with at least two years of professional experience. He will do primarily tutorial or laboratory or drawing-office work and some lecturing work at the intermediate level.

(3.20) A classification of teachers, whether employed by the University or employed in an affiliated college on the lines indicated above would reduce the number of persons designated as Professors in the Universities and in affiliated colleges. This is a very desirable step as we are inclined to think that the word "Professor" has been made too cheap and almost in all colleges a teacher, who takes a lecture, passes off as a Professor. We realize that such a reform and the introduction of uniformity in designations in the Universities and in the affiliated colleges will take some time. There is, however, no reason why a beginning towards this kind of rationalization should not be made. The Universities should lay down that every fresh appointment of a teacher in the University or in an affiliated college or a recognised institution should henceforth be made with designations as explained above. The authorities concerned may examine also the question of altering the designations of the existing staff in

accordance with our recommendations. We are recommending later in this Chapter scales of pay we consider suitable for teachers in the Universities and in Colleges. It would be a vital piece of reform if Government could persuade all the Universities to adopt these scales and accept the basic qualifications laid down above.

(3.21) We are of the opinion that only those persons who have research qualifications and who are actively engaged in research should ordinarily be permitted to take post-graduate classes in all Faculties. Such a restriction may become too severe at the present stage of development of our Universities. Since some originality has to be encouraged in the post-graduate students and this can only be done by persons actively engaged in original work, we strongly recommend that no University should be permitted to undertake post-graduate teaching in any subject in which it is not able to provide at least one teacher in that subject, who is actively engaged in research and who has published his own research. It would be appropriate to quote here an extract from 'The Objectives and policies of the Massachusetts Institute of Technology, U.S.A.'.

"Experience has demonstrated that teaching of the highest type, especially in Science and its applications, thrives best in an atmosphere of steady progress in the understanding of the subject taught. He, who is still a student, who is still himself learning, whether it be new relationships of the most fundamental scientific nature or sounder and more economical ways of applying scientific knowledge for the promotion of Industry and Public Welfare, can best guide those about to enter upon a professional career.

Advancement in professional understanding is best acquired by intimate association with creative workers who are, through research, extending the boundaries of their profession."

In our Universities, we have noticed that some years of teaching experience at the intermediate stage, qualifies a person to do post-intermediate teaching and some years of routine teaching at the post-intermediate stage qualifies a person to do post-graduate teaching. This practice is against the very purpose of post-graduate education which is to encourage original and independent thinking. This cannot possibly be done by the type of routine experience that is acquired in the manner indicated above and the first desirable step for changing the tone of post-graduate education is, therefore, to accept the minimum condition, that no University should undertake post-graduate instruction in a subject for which it has not got even one teacher who is himself actively engaged in research. It is hoped that in due course all the teachers doing post-graduate work will be persons with research qualifications and experience as stated earlier. This criterion of ours naturally leads to the conclusion that certain Departments doing post-graduate work in the Universities should be abolished or if they are to continue, persons with research experience, who are also actively engaged in research, should be recruited. If no such men are available in the Country, it would be desirable to get, on loan from abroad, for a short period, persons with such qualifications in the subject. It is really better to stop doing bad work rather than defend it on the plea that there are not adequately qualified men and, therefore, lower standards are inevitable. The elimination of the school master from the sphere of post-graduate education is overdue.

(3.22) It is also desirable that some of the best men available for a subject in a University, should also participate and deliver some lectures for post-intermediate classes, wherever post-intermediate teaching is a direct responsibility of the University. It is our view that the correct approach to a subject combined with

the necessary interest can only be induced by teachers who are actually making contributions to the advancement of knowledge. Denying to under-graduates contact, in some form at least, with such teachers is like starving the young plant.

(3.23) As an interim measure, persons with different degrees of teaching experience, but without any research experience may have to be permitted to do both post-intermediate and post-graduate teaching. However, the Universities must plan and devise some means for keeping them abreast of the developments in their subjects. Teaching experience by itself does improve a teacher. But it is doubtful whether such improvement can amount to much after the first five years of teaching. At this stage, there is usually a tendency to rely on prepared notes. This can only be resisted by giving suitable opportunities to the individual for improvement by doing some research. In this connection, we may mention that, thanks to the efforts of our Prime Minister, reasonable grants for any individual who has a desire to do research and who can submit a scheme, are made available by the Central Scientific bodies. The Universities or the College concerned should, therefore, encourage their staff to read, think out and submit suitable schemes of research. Further, we do not consider the excuse of lack of time as a legitimate one preventing persons from doing research. There is enough opportunity afforded through holidays and vacations during which a person can read and do some work if he is so inclined. A 'no research' report from a teacher is just an indication of either his utter lack of ability or his lack of aptitude or his lack of desire to do work and this should not be encouraged.

#### SERVICE CONDITIONS OF TEACHERS.

(3.24) The service conditions of teachers appear to vary from University to University and even in a University between University Departments and affiliated or constituent colleges. It is desirable to have a uniform standard in respect of at least some major conditions of service of a teacher.

(3.25) *Age of Retirement.*—The first question is one about the age of retirement. The age of retirement varies from University to University and between affiliated Colleges and University Departments. The age of retirement generally signifies the period at which the person concerned lacks, under normal conditions, the physical energy to carry out the responsibilities and duties entrusted to him. There is not such change of climatic and other conditions between a University Department and an affiliated College or between one University and another as to warrant such wide ranges of variations as exist to-day. This question has been considered in detail by the Radhakrishnan Commission and following the recommendations made in that Report, we recommend that the age of retirement for all teachers not only in the University Departments but also in affiliated colleges including Government Colleges, should be fixed at 60. If a Professor above 60 is adjudged by the same type of Committee as selected him for appointment, to be fit to hold a professorship, and if he is considered by a Medical Board appointed by the University to be physically fit in all respects, he may be reappointed for a further term of four years at the most. No permission should ever be granted for the employment of persons who have crossed the age of 64 in any capacity either in an affiliated college or in a University Department. However, it should be open to Universities to confer on persons who have done conspicuously good work, the title of Professor emeritus, given them a reasonable honorarium and facilities for reading or research and permit them to take one or two research students each. Apart from such an exception, the age of retirement should be uniformly 60 and must be enforced in all the Universities and in all their affiliated colleges.

(3.26) *Scales of Pay*.—The different Universities in the State of Bombay have different scales of pay for Professors, Readers and Lecturers and they show wide variations. Similarly, the scales of pay recommended for affiliated colleges are also different. We are of the opinion that the scales of pay for each designation in any one University should be the same, *i.e.*, persons of corresponding qualifications and doing similar work should be given the same scales of pay both at the Universities and in their affiliated colleges. We also hold the view that it is desirable to have uniform scales of pay for all the Universities in the State of Bombay. In the course of our discussions with representatives of Universities, we found that there was a general unanimity of opinion regarding such uniformity provided certain compensatory allowances were admissible in costly cities like Bombay. The representatives of the University of Poona, however, were strongly against such uniformity. They had no hesitation in telling us in unequivocal terms that the scales of pay must be in consonance with the general traditions and conditions prevailing in the Region. Further there have been certain difficulties in the way of assessing the actual financial return that the University employees get. Thus, in some Universities, employees are given free quarters. In some cases, employees are provided with quarters at a nominal rent. There are also cases where there has been a tendency to employ retired persons who get, in addition to their salary in the University, some pension or Provident Fund earned as a result of their prior work. The standard of qualifications expected from persons who hold offices corresponding to the same designation is not identical in all Universities. Thus a person who may be selected for the post of a Professor in one University, may not come up to the standards expected for a Professorship in another University. In spite of these difficulties, we feel that insistence of uniformly high qualifications leads as a natural corollary to uniform scales of pay and service conditions. Such provision will have a very beneficial effect on the loyalty and efficiency of the teaching staff as migration from one University to another will cease to be profitable except when promotion is involved. This will also lead to contentment since competent teachers engaged in research will know that they will have a chance of the same higher emoluments in their own University as elsewhere. We propose, therefore, that the following scales of pay be recommended by Government for adoption by the Universities and Colleges :—

				Rs.
Professors	..	..	..	800—40—1,000—50—1,250.
Readers	..	..	..	500—30—800.
Assistant Professors	..	..	..	400—25—650.
Lecturers	..	..	..	250—25—500.
Junior Lecturers or Tutors	..	..	..	200—15—350.

In arriving at these scales of pay, we have taken account of the recommendations of the Radhakrishnan Commission, the University Grants Commission and the prevailing scales of pay in the Universities and their affiliated Colleges including Government Colleges. When designations of incumbents are readjusted according to their qualifications and the type of work they are called upon to do, it will be seen that there will be no significant financial burden on the affiliated colleges and the Universities, but even if there is a little burden, it should be borne in the interest of better education. Most non-Government colleges do only teaching upto



the degree stage and the maximum salary admissible for the staff of such colleges will be Rs. 650, the maximum of the grade of an Assistant Professor, since for Honours teaching, Assistant Professors will have to be appointed. We envisage the appointment of Readers only where both post-graduate teaching and research facilities are provided. Professorships should be created and filled mostly in the Universities only and are expected to be offered to persons of some recognised standing and eminence. So far as Government Colleges are concerned, most of the work will be done by holders of appointments in the last three categories which implies a splitting up of the existing Class II service in a more rational manner and making the automatic rise to the Class II maximum impossible. It also enables Government to provide for promotion from one category to another in deserving cases. The posts of Professors and Readers fall into the Class I service. Even here, most of the posts will be those of Readers and a Professorship will be rare. A person holding a post earns his increments during a ten year period. This is sufficiently long for the person to prove his worth and quality for a higher appointment.

The abovementioned scales of pay are exclusive of Dearness Allowance, Local Compensatory and other allowances which should be paid at Government rates. We strongly recommend that wherever persons with the requisite qualifications are not available a higher initial salary even upto the maximum of the scale should be allowed to well qualified candidates. In such cases, the advertisement should clearly state the higher starting pay offered. In selecting candidates, the comparative merit of the candidates should be the main consideration and not the fact that a candidate with minimum qualifications is prepared to accept the minimum of the scale. We strongly feel that the selection of the best available person on a higher initial salary will go a long way in toning up our educational system. It is worth noting that when a person with the minimum qualifications is appointed in preference to a superior candidate who demands a higher salary tremendous harm is done to a whole generation of students who will continue to be educated by that person.

In view of the existing conditions, for the purposes of our recommendations for grant-in-aid, we have only taken into account the existing scales of pay and the normal increments that will accrue in due course.

(3.27) *Quality of Work*.—In all Universities in other Countries, some device, technique or method has been developed to assess the quality of work done by a teacher in a University or in a degree college. Thus, in some of the American Universities, the efficiency of a teacher, so far as his teaching work for the students is concerned, is judged periodically by taking a gallop poll among the students who study under him during the few years prior to the date of the poll. Thus the students are supplied with cards in which they mark the teacher for scholarship, for his interest in the subject, for his ability to interest the students, for his regularity, for his personality, for his powers of expression, etc. The results of such polls are taken into account for assessing the extent to which a teacher is useful to the students graduate or under-graduate. We are not sure whether such a system will work effectively in our Country and whether we can get very reliable results by this method. While we are in favour of some of our Universities trying out this technique, we would recommend that some discretion may be exercised in assessing the results of such polls. In some Universities in some Countries, a person qualified to hold a post, can be appointed as an extra-ordinary Professor and he can take courses of lectures on the same subjects on which the University Professor or the other teacher is taking lectures. The usefulness

of the lectures is judged by the number of students attending each of these alternative courses of lectures. In some cases, attendance at lectures is made entirely voluntary and the quality or usefulness of the lectures of a teacher is judged by the number of students taking the course of lectures. This method is neither practicable nor desirable in our Universities. However, the following method which has been developed elsewhere can be commended with confidence not only to the authorities of our Universities but also to the authorities running affiliated colleges. Every 3 years or every 5 years as may be decided by the authorities, each teacher is required to submit a detailed report of all the work done by him during the period. Such a report should include the synopsis of the lectures he delivered, the changes he made for the presentation and in the material of his lectures, the difficulties in following the subject that the students experienced according to his assessment, the types of tutorials he conducted, the response he had at these tutorials, the interest he displayed in extra-curricular and other activities, the reading, the writing and the reviewing of books or papers published in his subject that he did and last but not the least the research work that he did himself or he guided during the period.

In our opinion, there should really be no difficulty in the way of calling for such reports from all the teachers every three years. Such reports can always form a very useful basis for judging the person. Unless the person concerned has taken the type of interest he is required to take, it will be almost impossible for him to prepare the report. The tone and manner in which the report is presented and its content can be utilised by anybody including himself to assess the quality of the work that he has done. We recommend that this system be introduced and the results of such a system be exchanged by the different Universities and by the Colleges. In fact, we feel that the very requirement that a person has to submit such reports will by itself tend to change the whole tone and interest in work of the persons concerned.

(3.28) *Library Facilities.*—It is not possible for all the teachers to afford purchase of books and journals of their interest. It is, therefore, desirable that some books other than text-books and some special journals which may not be directly useful for the teaching set-up of a Department, should be ordered by the University or College libraries for the benefit of the teachers whenever such requests are made by the teachers. A special grant for this specific purpose will have to be set apart in the library allotment.

(3.29) *Other Activities.*—In addition to the routine teaching and other academic work in a College or a University Department, each teacher should be called upon to take some interest in the extra-curricular activities in some form or the other. This enables the teacher to mix freely with the students outside the class-room and helps the shaping of the character and social qualities of the students. In addition, teachers must all be encouraged to give lectures of a general character on some important and recent developments in their subject in a popular form. Such lectures are useful to everybody interested in knowledge and from the standpoint of the lecturer for clarifying his own ideas and developing his methods of exposition at a less professional level.

#### WORK LOAD OF THE TEACHER.

(3.30) The amount of work that a teacher is called upon to do varies from University to University, from Faculty to Faculty. Further, it differs considerably as between teachers in Universities, and those in affiliated colleges and recognised institutions. It is not clear how a person teaching at the post-graduate level and

guiding research can be called upon to do more work when he is attached to a college and very much less when he is an employee of the University. If the same standards of efficiency are to be maintained, it is impossible to understand this disparity that prevails in most Universities. It is necessary that such disparities should be removed. However, we may add that if there is a person doing outstanding work, he may be relieved of a part of his routine responsibilities, but there is no case for making such distinctions between two persons of about the same calibre doing the same quality of work. In fact, the concept of co-ordination and utilisation of the services of persons employed in Colleges or Institutions or University Departments for the same purpose and the pooling of all such resources loses all its significance when this kind of distinction is made between men of similar qualifications and experience.

(3.31) The amount of work assigned to different teachers in different University Departments or to teachers contributed from Colleges shows considerable variations. This variation has been noticed by us not only from University to University, but even within the same University and even in the same Faculty. There are obviously certain reasons for making certain differences depending on the organisational set up for the different Universities or their Faculties. But many cases do not come under this category. Arithmetical calculations we realize, are dangerous and may not be considered strictly academic, but working on a broad basis and taking an all round picture of the whole problem, we feel that certain approximate general standards have to be applied. Unless this is done, it becomes difficult to make an assessment of grant-in-aid for which some basis must exist for calculations. We considered carefully what should be the normal amount of work that a teacher in the University should be called upon to do. Taking all factors into account, we have come to the conclusion that a University has to adopt some work-load unit for its teachers. Firstly, there is no place in the organizational set up of a University for a person who is to be employed primarily to do research on his own. Such persons can only find employment in a University as research fellows, but certainly not as Professors, Readers or Lecturers. Professors, Readers and Lecturers are specifically appointed for imparting instruction at the under-graduate or graduate level, for guiding research students and incidentally to do research work on their own. This latter part of their duty is done partly for the love of it and partly to enable them to keep abreast in their chosen field, so that their utility as teachers and research guides may improve. Under the circumstances, there is no case for a Professorship, Readership or a Lecturership in a University, when that post has not attached to it, adequate work by way of teaching or guiding research students.

(3.32) The approximate standards for determining the work of a teacher should, in our opinion, be as follows:—

(a) At the post-graduate level, we feel that two lectures a week for a paper of 100 marks for one year should be quite adequate. This should be supplemented by one tutorial a week.

(b) At the post-intermediate stage, 3 lectures a week for a paper of 100 marks should be more than adequate. This may be supplemented by one tutorial a fortnight.

(c) For purposes of tutorials, a teacher may meet a group of students. Such a group should never consist of more than 8 students. Two or three would be an ideal number at the post-graduate stage having regard to our financial limitations at present. At the post-intermediate stage, about five to eight should be a practicable figure.

(3.33) Whatever the arrangements a University makes for instruction and training of its students, they lose all their value when there are no planned tutorials, systematically conducted and strictly enforced. Tutorials provide the free personal contact with competent teachers by which students can absorb instruction received through formal lectures. This personal contact between the teacher and the taught and this attempt to shape the reading and thinking powers of the student is the primary function of a University and the one way by which the training of an internal student differs from that of an external student. Until tutorial work has been planned and organized in a systematic manner and strictly enforced, we cannot say that University Education has started taking shape.

(3.34) In Science and Professional Colleges, it is necessary that laboratory work is not left entirely in the hands of Demonstrators. In fact, we see no place for a Demonstrator in any scheme of good post-intermediate or post-graduate instruction. Senior men should regard it as a part of their duty to spend some time in the laboratories asking questions to the students and watching their work. It is also necessary that daily records of the impressions are maintained by marking a certain percentage of the students in the laboratory every day. There is no reason why an average of these marks should not be carried over to give some credit in the final practical or oral examinations. This will induce a higher degree of responsibility on the part of all the teachers and infuse a better sense of discipline amongst students.

(3.34-A) In estimating the work-load of a teacher in all these different capacities, we consider the following as a possible, but very rough equivalence. Two post-graduate lectures as defined by us above may be taken as equivalent to three post-intermediate lectures. Attendance for two periods in the laboratory for the purpose indicated above may be taken as equivalent to one lecture period of the class concerned.

(3.35) The number of lectures delivered for a paper varies from University to University and from subject to subject even in the same Faculty and in the same University. In estimating the work-load of teachers, we have reduced all these lectures to the uniform level that we have indicated above. Thus if a teacher for a subject takes 6 lectures at the post-intermediate stage, we have considered it was equivalent to 4 lectures at the post-graduate stage for estimating the work-load of the teacher. We consider 2 post-graduate tutorials as equivalent to 1 lecture for the class concerned. Guiding 6 research students should be considered as equivalent to 4 lectures of the post-graduate standard for assessing work.

(3.36) We consider that a teacher in a University has a full load of work when his work is equivalent to 8 post-graduate lectures, i.e., a teacher may have 4 post-graduate lectures and 6 research students or 9 post-intermediate lectures and 2 post-graduate lectures and so on. In many North Indian Universities, the load is heavier. We feel that a post is justified in a University when the work-load for a teacher is approximately about this figure. Exact arithmetical calculations are not possible and in making our recommendations, we have allowed for a reasonable margin of departure from the proposed form on either side.

(3.37) It is desirable to distribute the work of a teacher fairly uniformly between lectures, tutorials, laboratory work, drawing hall attendance, clinical work, etc., instead of concentrating the work of one person in one field only. We realize that in some cases, this is not possible, but in the large majority of cases, this is not only easily realizable, but also most desirable. We have to point out that in some of

our Universities, the work load is very much below what we have recommended. The authorities of the Universities may be requested not to fill vacancies, as they arise, in such cases. Further, before approving the creation of new posts, Government might examine carefully the work load of the existing staff.

#### ADMINISTRATIVE WORK OF TEACHERS.

(3.38) There has been a tendency not only in affiliated colleges, but also in University Departments to make much of administrative duties and responsibilities. It is imperative that there should be a minimum of red tape if a University is to progress and work is to be done expeditiously. There is and there can be no administration as such for a University Department apart from what is required as a regular part of one's academic duties. A professor has to order equipment for his department; this equipment is required for either teaching in the Department or for research. He has to receive and check the equipment and install it. All this work is really a part of work incidental to the teaching and research activities of his Department. Similarly, a professor is to select students for the different courses of study and for research. If this work is not done by him, he will be the poorer as the material he gets will not be what he would require according to his own standards. A professor has to issue testimonials to his students; proper employment of students trained by a professor and the prosperity of past students constitute what is called an invaluable psychic income for the professor. Writing testimonials is, in our opinion, a pleasant duty of a professor. It is quite true that all these do take time and to that extent the total time available for other duties is reduced; but it is after taking full account of these additional responsibilities of a professor that we have recommended a certain desirable work load for a University teacher. Although this work load is heavier on the professor who has additional duties than on the lecturer, it has to be pointed out that a lecturer is a junior man in the field and requires longer time to prepare his lectures or laboratory work and has to spend a much greater proportion of time for planning his own research work. Further, a Principal has to set an example to the professor by working harder than the professor, a professor to the lecturer by working harder than the lecturer and so on.

Another aspect of administrative work that falls on University teachers consists of attending meetings of Authorities of the University in their ex-officio capacity. This they have got to do, as decisions of the different authorities affect the courses of instruction and research in their own Departments and contribution based on their valuable experience is always expected from them in the larger interests of the University.

(3.39) In all these cases, we find that certain procedural requirements as developed in the different Universities lead to unnecessary wastage of time for which partly the teachers themselves are responsible. Thus there may be a procedural requirement for the admission of students, the preparation of the budget for the department, the issue of testimonials, the filling of posts, etc. In the procedural requirements, very often, committees are set up and as the recommendations of these Committees go from stage to stage, modifications are made and professors are called upon to resubmit their proposals. It is this aspect that unnecessarily increases work. It is possible for the Universities to take firm decisions and reduce waste of time and energy. This can only be done by taking broad policy decisions and informing each Department of the limit up to which financial provision can be made and laying down a systematic procedure for disposal of other business. If a professor is not

able to put across exactly what he wants correctly and if his statements have been repeatedly modified by himself on the basis of obvious objections, he has only himself to blame. The University should put down such inefficiency with a firm hand. If this is not done, vague and half-baked proposals requiring critical examination at almost every stage will always continue to come through, and this will involve not only the professor in additional work, but also increase the work of the administrative set up of the University.

(3.40) It is a fact that in new Universities which are still in the stage of development, several new proposals have to be called from time to time. In this case, we take the view that a Department should always be asked to submit a complete and integrated plan for a period of 3 or 5 years and such a plan should be scrutinised only once. If it is within the financial limits of a University, it should be sanctioned once for all and should not be modified from year to year. Changing schemes and sanctioning half-baked schemes halfway makes the professor lose interest. The work increases and no real return from the stand-point of providing higher education results. Many Universities generally hope for a windfall by way of an increased grant from the State Government or by some sudden grant from the Central Government and go on playing about with possible schemes. The only way of putting a stop to such wasteful enterprise is a careful examination of proposals of the Universities by both the Central and State Governments and the fixation of grants on a guaranteed basis for a certain period. This question will be discussed in detail later.

(3.41) It is necessary for us to point out that every problem of administration as it faces a University Department is in its final analysis a real educational problem. The correct solution of it would always constitute the very basis of progress. Educationists have to take such decisions themselves. Hence we cannot reconcile ourselves to the view that there is administrative work which is divorced from the needs of education and research. It is quite true that there is some routine type of administration like granting of leave and increments, checking of bills, receipt of fees, etc., but this kind of work should always be done by the office of the Registrar.

(3.42) We may, however, incidentally state that certain provisions in the Acts of Incorporation of the different Universities make it necessary for the University to go through an elaborate procedure for getting decisions. We consider these provisions very necessary. One case may be mentioned. The creation of a post in a Department requires the recommendation of the Syndicate or the Executive Council and the Academic Council and sanction by the Senate or Court of a University. The post has then, to be advertised and filled on the recommendations of a Committee constituted in accordance with the Act. Even for constituting the Committee, the Academic Council and the Executive Council have to meet. This elaborate procedure is meant to act as a brake on any attempt at hasty decisions, and is quite necessary.

#### UNIVERSITY DEPARTMENTS.

(3.43) A University is really a Universitas of knowledge in which all human problems have their place. Therefore, there is justification for the establishment of departments for teaching and research for every branch of human knowledge. Viewed in this context, the financial and other requirements of a University become unlimited. Hence although the ideal is desirable, we have to take a practical

view of things, bearing in mind the financial limitations set by the general poverty of the Country. For a proper atmosphere to prevail in a University, there must be at least three or four Faculties. Thus there is justification for the existence of a Faculty of Arts, Faculty of Science, a Faculty of one or more of the Applied Sciences and one or two other Faculties. Such a provision has actually been made in the Acts of Incorporation of the Universities. The Faculties stated in the appropriate sections of the Acts have to be constituted. Going beyond this stipulation may not always be desirable in the very early stages. A Faculty has to be provided for a large number of inter-related subjects. Attempts have been made in some Universities to split Faculties and constitute more Faculties. Such a process will lead to shortage of experienced and able personnel to serve on the Faculty and a consequent lowering of standards. Moreover, such multiplicity increases expenditure and administrative work of the University office without in any way adding significantly to the improvement of the educational set up.

(3.44) In each faculty, a wide range of subjects is included. It is open to a University to add to the already existing subjects and to start a Department for each subject. It is, however, necessary to limit the number of Departments in each Faculty particularly where the University proposes or has proposed to set up a University Department. This question presents itself mainly on financial considerations but has also an academic aspect from the stand-point of availability of personnel and students. There are a few subjects in which we feel instruction should be provided up to the Master's degree in every University. In the Faculties of Arts and Social Sciences and Natural Sciences, we would consider provision for the following subjects as justifiable:—

*School of Languages.*

- (1) Regional language; (2) Hindi; (3) English; (4) Sanskrit.

*School of Social Sciences.*

- (5) Sociology; (6) Economics; (7) History; (8) Politics.

Sociology, History and Politics may not be provided for as principal subjects in all Universities but provision for them should be made as subsidiary subjects in all cases. The necessity of providing for post-graduate instruction in other subjects in the Arts Faculty depends on the special requirements of each individual University.

*School of Natural Sciences.*

- (1) Physics; (2) Chemistry; (3) Mathematics; (4) Botany; and (5) Zoology.

Some or all these subjects can justifiably be taught at each of the Universities, but providing for instruction in all the sub-branches of each of these subjects at each University is not practicable.

(3.45) In the Faculty of Agriculture, Universities by themselves make no provision and it is almost entirely left to the Government Colleges to develop themselves in such manner as they deem fit. The same applies to Medical and Engineering Faculties, the University of Baroda being an exception in so far as Engineering is concerned.

(3.46) There are besides, other Faculties with peculiarities of their own, but they cannot be considered as divorced from the specific needs of an individual University and we shall be referring to these Faculties in the Chapters on the appropriate Universities.

(3.47) In each Department, we visualise that a certain minimum set up is necessary if it is to function properly. Firstly, apart from a Professor or a Reader, there must be some additional staff. The Department must have at least 5 or 6 research students and staff qualified to guide them. To meet these requirements, there must also be adequate building, library, laboratory and other facilities.

(3.48) There is always adequate justification for the set up of a University Department, even without any students to begin with if a man of outstanding ability and sound reputation is available. Department can grow round him even in a new subject and his name might assist in attracting adequate financial assistance from various sources. When this condition is not satisfied, a Department can only be opened when there is real demand. By real demand, we mean a certain number of *really well qualified* students wanting to enroll themselves for post-graduate degrees and for research. We consider a minimum of about 10 students for a post-graduate degree or the three year Honours degree and a minimum of 3-4 research students as a basic requirement for the establishment of a University Department. For certain subjects the minimum number is much too small and the expenditure is bound to be disproportionately high. In such cases, there is always a way out. Each University in the State can have one or two such Departments and all the students of the State may go there. If necessary, such migration can be subsidised by very liberal scholarships. We discussed these questions with the representatives of the different Universities. Some of the Universities were not in favour of cutting down their existing commitments under any circumstances. We can appreciate this stand as the stability of a University Department once established is a basic necessity for progress. It is necessary, however, that the above criterion for the need for a new Department be borne in mind by the Universities as an academic one apart from limitations of finance.

(3.49) We may also mention that several departments and several new posts in each Department are created in different Universities. There appears to be a race in this field and each University appears to feel that it can knock at Government's doors for grants by this process. In several cases, there is no justification for such departments or for the posts created in view of the existence of corresponding facilities in other State Universities. Universities are autonomous bodies free to undertake such work but in the larger interest of economy, exercise of this fundamental right requires caution. Consolidation rather than haphazard expansion should be the rule. We carefully considered this whole question and have come to the conclusion that the only way of effecting co-ordination is by requiring that all Universities should create posts by the framing of statutes. Similarly, Departments should also be created only by framing appropriate statutes. No Statute should be brought into operation without the specific approval of the Chancellor or the State Government. If necessary, the University Acts should be suitably amended. It will then be possible for Government to examine the Statute and write to the University concerned pointing out the existence of a similar department in another University and inquiring whether there is need for the Department. Similarly, whenever an additional post is created, it involves financial liability to which the State Government may directly or indirectly get committed. Having regard to the resources of the State for financing University education, this question can also be examined before sanction is accorded to the appropriate statute



(3.50) We are conscious of the fact that the Universities would not appreciate a requirement for creating posts or Departments by Statutes and would construe such a step as affecting their autonomy but under the conditions prevailing at present, no possible effective alternative suggestion for co-ordination amongst Universities, can be made.

#### AUTHORITIES OF THE UNIVERSITY.

(3.51) In accordance with the Act and the Statutes made thereunder, several authorities of the University are created. For the conduct of University business, it is necessary to call meetings of such authorities who have to take decisions. Frequent Meetings of such authorities and frequent changes of decisions of such authorities increase the work of administration and involve a certain amount of instability for courses of instruction, etc., with which the student population is directly concerned. Our attention was drawn to changes of courses occurring more frequently in some of the new Universities than in a decade or two in the older well established Universities. To put a check on such haste, it is desirable to frame Statutes, specifying the meetings of all such authorities of the Universities on suitable fixed dates. When Meetings of such authorities are limited in such a statutory manner and the dates of such meetings are also specified, there will be considerable rationalisation in the work of the Universities. Further, it is also necessary to lay down by Statutes the order in which business is taken up and the meeting at which a particular type of item is considered by any of the authorities of the University, except the Executive Council or the Syndicate. Thus, suppose it is laid down that the academic Council considers revision of courses, duration of courses etc., only in the July Meeting, then the Meetings of other bodies can be carefully planned. Further, a decision so taken can be implemented and communicated to the colleges or departments concerned in good time. Similarly, it may also be necessary for Universities to lay down by Statute that courses of instruction once approved remain valid for a minimum period of at least three years, without modification. This will add stability to the courses and consequently to the requirements of the teaching staff in University departments.

#### UNIVERSITIES AND THEIR CONSTITUENT UNITS.

(3.52) Apart from the University departments which may exist, the affiliated or constituent colleges and recognised institutions of the University also impart instruction up to the post-intermediate or post-graduate stage and provide facilities for research. Institutions of this type have existed, in certain cases, before the coming into being of the University itself. They have been discharging their responsibilities within limits set by their own finances and scope, as envisaged at the time of their foundation, with credit. Such institutions have always served a useful purpose. Some of them may be in a position to provide facilities which a University attempts to provide by having a department of its own. In other cases, it may be possible to up-grade such existing institutions and derive all facilities that a new University Department intends to provide. In all such cases, it appears to us that a desirable approach to the problem is to utilise the existing resources or to improve such existing resources. In the course of our discussion with some representatives of the Universities, we were told that such a step does not serve the purpose of a University Department. In one case, we were told that, although the University had powers of control and co-ordination, it could not do much unless the power to appoint and dismiss personnel also vested in the University. We are of the opinion

that this is an extreme view which should hold only after a preliminary exploration has really failed. We shall, therefore, examine the needs of the University Departments in the case of certain Universities on the basis of co-ordination of existing facilities and elimination of waste and overlapping of facilities.

#### POST-GRADUATE TEACHING AT MOFUSSIL CENTRES.

(3.53) Most of the Universities have arranged for post-graduate teaching and research at the head-quarters of the University. In addition, some post-graduate teaching and research has been permitted at other centres in the University area. During the course of our investigation, we gathered the impression that the same degree of attention and importance that is attached to this work at the University centre is not attached to similar work at the mofussil centres. This is unfortunately not a happy state of affairs. The acts have deliberately placed the full responsibility for post-graduate teaching and research on the Universities with the expectation that the necessary high standards would be maintained. Such a purpose would be defeated if there are variations of standards. We realise that with the limited finances at the disposal of the Universities, it is perhaps not possible to realise such an objective. At the same time, the tone and quality of post-graduate work would go down if varying standards are permitted. While we generally concede that all post-graduate work should be concentrated at the University Centre or some one suitable centre in the University area, do not rule out the possibility of encouraging post-graduate teaching and research at mofussil centres also. In such cases, the Universities must strictly adhere to the standards they have laid down for this work. A way of approaching this problem that appears feasible is as follows. If an affiliated college proposes to provide post-graduate teaching or research facilities, this question must be examined on the same basis as for a University Department. The total expenditure and income from fees should be worked out and if the college concerned is prepared to meet 50 per cent. of the deficit on this account, the University may contribute 50 per cent. and start the post-graduate centre, provided there is *real* need. If necessary, the University should not hesitate to appoint staff and attach them to such an affiliated college or institution. If financial or other reasons come in the way of the Universities providing facilities of this character or if the college concerned is not able to provide half the deficit, it would be better to stop post-graduate instruction at that Centre. So far as research is concerned, if there is a well qualified person doing good work at any place within the University area and if he has the facilities, he should be permitted to take research students. Such persons should also be encouraged by the University by giving small grants for meeting the additional expenditure on account of his research work.

(3.54) By gradual development of post-graduate facilities at outside centres which are growing, it should always be possible to create a nucleus for a new University within the area of a University. Such a step would be a logical and natural step, but while taking such a step, laxness of standards should never be tolerated. For any school of post-graduate teaching or research to grow properly there must be the necessary atmosphere. Such an atmosphere can only exist if work is being done in more than one subject. This educational aspect should always be kept in view while conceding post-graduate facilities at mofussil centres.

#### THE APPROACH TO PROBLEM OF EXPENDITURE.

(3.55) In any scheme of post-graduate teaching and research, the equipment and the buildings constitute only one aspect of the problem. The teacher is really the most important part of the educational system. In addition, there should be

library and laboratory facilities and some expenditure of a recurring character has to be incurred on consumables and for the general upkeep of the laboratory. It is not possible to lay down any rigorous standards of expenditure on this account. It will vary with the number of students taking advantage of a course, the general level of non-recurring equipment etc. that has been purchased and the stock of consumables that has been accumulated. Further it will also vary from subject to subject. The question has to be investigated and the amounts of recurring grants for this purpose have to be arrived at. In our investigations we have generally been guided by the figures given by the authorities concerned on this question. However, we would recommend that the authorities of the Universities should carefully scrutinise expenditure on this account and satisfy themselves that the expenditure is fully justified when the figures are very much outside those shown below. In the table, the figure refers to the expenditure for a student per annum in the class for all the subjects taken together:—

I.Sc.	B.Sc.	M.Sc.	M.Sc. Chem.)	Ph.D. (other than Chemistry).	Ph.D. (Chem.)
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
60	125	200	400	300	400
F.E.	S.E.	B.E.	M.E.	Research in Technology.	
Rs.	Rs.	Rs.	Rs.	Rs.	
125	125	200	400	600	

We are not giving such tables for subjects included in the Faculty of Medicine, Faculty of Agriculture, etc., as none of the Universities has at present its own Departments under these faculties.

(3.56) In addition to laboratory facilities, recurring expenditure has to be incurred on libraries. For this purpose, we estimate that a sum of Rs. 1,000 is necessary for a subject on the Arts side, Rs. 1,000 per subject on the Science side and Rs. 1,500 per subject on the Technology side. When we use the word "subject", we imply the subject or group of subjects for which the Board of Studies would normally be constituted, i.e., on the Engineering side, all branches included under Mechanical Engineering would be one subject. Similarly, on the Science side all branches of Chemistry would be included under "one subject". When however, post-graduate degrees are given in a branch of a subject, like Organic Chemistry, Physical Chemistry, etc., the grants we have specified would be necessary for each of the sub-branches. In addition, some grants will have to be given for the purchase of research journals of a special character required for the special research in which the Department is engaged.

#### FREESTUDENTSHIPS, SCHOLARSHIPS AND FELLOWSHIPS.

(3.57) The doors of a University must be kept open to every brilliant student, however poor he may be. This question has already engaged the attention of Government and some concrete steps have been taken. Government have already introduced scholarships in the different Government Colleges. Fellowships are also awarded by Government. In most cases, to qualify for the award of stipends, the student has also to satisfy a means test. Some of the non-government colleges also award freestudentships and scholarships to undergraduate students.

At the post-graduate level, some of the Universities have provided for scholarships and free studentships. For research, the Government of India in the Ministry of Education have introduced junior and senior research studentships awarded only on merit without any means test. These research scholarships have been allotted to different Universities and Colleges. In addition, if the services of a research student are utilised in any scheme of the Council of Scientific and Industrial Research, he can be employed as a junior or senior research assistant. For those who have already done research, there are the I. C. I. and National Institute of Sciences Fellowships, awards of the Indian Council of Medical Research etc. Students can also be employed as research assistants under schemes of the Indian Council of Agricultural Research. There are also the Engineering Research Fellowships awarded by the Committees of the C. S. I. R. from time to time. There is thus some form of all round provision at all stages for all the faculties. But the questions we have to examine are (a) whether the value of a stipend is adequate to enable a poor boy to maintain himself entirely on the stipend, (b) whether the number of such stipends is adequate and (c) whether our Universities and Colleges in the State have adequately tapped the Central sources available.

We are of the opinion that all awards must be made on merit alone without the application of any means test. In a welfare democracy with heavy taxation for higher incomes and gradual reduction of higher rates of pay etc., the strain of educating children is felt at all levels. It is difficult to apply the means test correctly except in the case of salaried classes. Further, provision has to be made to encourage real merit wherever it is found.

In the present economic set up of the country, we are of the view that the following values of stipends are reasonable at different levels:—

		Rs.
1. Junior Scholarships up to the first degree	...	1,000 per annum.
2. Senior Scholarships for the Master's degree	...	1,200 ,, ,,
3. Junior Research Scholarships	... ..	1,500 ,, ,,
4. Senior Research Scholarships	... ..	2,400 ,, ,,
5. Junior Research Fellowships	... ..	3,000 ,, ,,
6. Senior Research Fellowships	... ..	5,000 ,, ,,

In all cases, the scholarship-holder must be exempt from tuition fees. The stipends must be payable quarterly in advance on the production of satisfactory progress and conduct certificates. The expenditure on the first three categories of stipends should be met from State funds and the expenditure for the last three categories should be forthcoming from central sources.

On the results of the State S. S. C. Examination, a certain number of junior scholarships may be awarded, tenable for two years, at any college affiliated to a University in the State. Similarly quotas of scholarships may be assigned to each University in the State for being awarded after the intermediate examination and tenable for the duration of the degree course selected, provided the student studies in one of the Colleges affiliated to the State Universities. The same quota system to the Universities may be followed for Senior Scholarships for the post-graduate degree; and for junior research scholarships. The Central Government may be approached for making adequate provision of awards under categories 4, 5 and 6. Universities and non-Government Colleges may be requested to co-operate with Government by granting the necessary exemption from fees.

It is for Government to consider the feasibility or otherwise of the scheme we are suggesting and give effect to it on a state-wide basis. In the absence of such an integrated scheme, we are making a reasonable allowance for the demands made by the Universities on this account in our assessment of grant-in-aid. Our attitude has been to allow for whatever the Universities have demanded so long as the provision is reasonable.

We are, however, not inclined to support schemes of free-studentships or partial assistance in any form. University in a Welfare State must discover talent wherever it is found regardless of all other extraneous considerations. But, we would add one point. If a student earning a scholarship of this sort is also awarded a scholarship founded in a University from donations, the value of the stipend awarded may be reduced by 50 per cent. of the value of the endowment scholarship.

The minimum qualifications to be possessed by a scholar, the conditions of the award etc. must be laid down in unambiguous terms so that a student knows his fate on the day of declaration of the results. In fact, we visualise the announcements of such awards on the day of declaration of results by the authorities concerned. Such a procedure will also reduce all laborious and unnecessary administrative work.

The recommendations made above are for all students. State measures for the amelioration of backward class students will, of course, continue side by side. If all assistance given by Government, at present, in the form of freestudentships or scholarships or stipends or fellowships is pooled together and a comprehensive scheme is prepared as suggested above, it would be possible to award these concessions through the Universities on a pro rata basis. As these awards will be on merit alone, it would be possible for the Universities to announce the awards along with the examination results.

#### STANDARDS.

(3.53) In the course of our analysis, we have drawn pointed attention to the need for maintenance of very high standards at the post-graduate and research level. Thus we have said that there should be no post-graduate teaching without having at least one teacher who is actively engaged in research. We have stressed the importance of tutorials and personal contact. We have emphasised the need for screening at the time of admission to post-graduate classes. All such steps would obviously involve a reduction in income and an increase of expenditure. Similarly, a scheme of freestudentships, scholarships and fellowships will also increase expenditure. In assessing the grants to the different Universities, we have based our calculations on the provision made by the Universities at present. Therefore, it should be clearly understood that increased grants under this head would be justifiable when and only when steps and the lines we have indicated are taken and to that extent only. We take it for granted that in view of what we have stated in the course of this chapter, every University will be advised by Government to take decisions about the maximum number of students to be admitted for a post-graduate degree by papers or by research, and lay down some procedure for effective screening. We also hope that the Universities will examine the workload of their teachers and also introduce some system for testing the utility and efficiency of their staff. It is also suggested that the Universities should arrange for periodical inspection of their own departments and take action on the basis of these inspection reports.

## CHAPTER IV.

**Basis for State Grants to Universities.**

## INTRODUCTION.

(4.1) The State Government is at present spending over 30 lacs of rupees by way of grant-in-aid to the universities in the state and this expenditure is likely to increase from year to year. The Universities are at present, almost entirely dependent on Government grants. Such a large amount of expenditure from public funds requires careful scrutiny prior to its admissibility and a detailed and rigorous audit. Just as donations are given to universities and institutions on certain conditions, it is now time for the state Government to give grant-in-aid on certain explicit conditions. Some of these are obvious. No university should be permitted to frame a deficit budget. All new items of expenditure and all commitments likely to increase expenditure in future should be submitted to the state Government and prior approval obtained. The universities must take such action as Government may suggest on the basis of the audit report and, even when not explicitly provided for in the Act the accounts must be submitted to the State Government for audit.

Assuming that the grant-in-aid is given on such conditions, we shall examine in this chapter the reasonable extent to which the state Government can go in meeting the deficits of the universities.

## UNIVERSITY BUDGETS.

(4.2) The sources of income for a University are very limited. These are examination fees, tuition fees levied by the University and miscellaneous receipts like fees for certificates of eligibility, migration, etc. In the larger Universities like Bombay, Poona, Gujarat and Karnatak, it should be possible to show a good surplus of income over expenditure on account of examinations. In fact, there is even to-day some surplus which can be improved upon. The second source of income to the University is tuition fees. A comparative statement of post-graduate fees charged at present in the State Universities is given in Appendix (IV) at the end of this Report. The fees charged for different classes vary from University to University. For some courses, the fees charged are rather low. This is, perhaps, inevitable when a new course is introduced and it is intended to give encouragement to students taking up such a course. There is room for the stepping up of the fee income in some of the Universities and where we have felt it should be stepped up, we have made the necessary recommendation. The third source of income left to the Universities is fees they earn from eligibility certificates, migration certificates and the First Year Examination fees. There is no possibility of an increase of income under these heads. However, we take the view that the expenditure of the Universities on administration and conduct of examinations should be strictly regulated. We have, therefore, considered the budgets of the Universities generally as falling into two parts :

(a) Administration.

(b) Teaching and Research.

The grants made by a State Government should be given separately for both these heads. This will avoid a possible diversion of income to expenditure from one of the above heads to the other.

(4.3) As regards teaching and research Departments, the Universities have shown a tendency to accept non-recurring grants or donations without regard to the recurring commitment that the acceptance of such grants or donations involves, and without planning for such commitments. It is necessary to impress on all Universities that such grants should be accepted when and only when there is a possible source for the consequent recurring expenditure. If such expenditure is to be expected from the State funds, such grants and donations should not be accepted without the concurrence of the State Government.

(4.4) There has been a tendency to show in one budget both recurring and non-recurring expenditure. It is necessary to advise the Universities to have separate budgets for recurring and non-recurring expenditure that they propose to incur during a year. There is a practice in some Universities to make an allowance for the depreciation of their buildings and equipment. There is no need for any provision for depreciation on account of University Buildings as these are or were built out of State funds or donations. All expenditure on current repairs is deemed to be admissible expenditure by Government. We, therefore, recommend that provision made by the Universities on account of depreciation on buildings should be ignored. The University buildings should be treated as Government buildings for this purpose. The assets in the University will, however, need to be insured against fire, loss, etc. The system of insurance and the procedure to be followed should be laid down by the State Government, so that there would be uniformity in the matter of conditions of insurance and premia payable.

#### STATE AND CENTRAL GRANTS.

(4.5) One of the most intriguing questions that has faced a State or a Central Government is the question of fixing grants from the State or Central Government funds to the Universities, from time to time. The University Education Commission presided over by Dr. S. Radhakrishnan has gone into the question of finance for Universities established by an Act of legislature of a State in India or the Centre. The Commission expresses its view as follows :—

“..... though the grants to other Universities are mainly provincial responsibilities, they should also be the concern of the Central Government at least so far as post-graduate education and research are concerned.” (p. 449). The same Report states, “ If one wanted to generalise one might say that while under-graduate education should be the concern of the Provinces, post-graduate and research work should be the responsibility of the Centre.” (pp. 448-449). The Commission recommends that the Central Government after taking into consideration such Provincial grants as may be made available should award grants, among others, for the following purposes :—

- (1) Building grants for Colleges and University Departments of study ;
- (2) Equipment grants ;
- (3) Library grants ;
- (4) Grants for halls of residence ;
- (5) Salaries of Professorial and other teaching staff, including Provident Fund, Pensions, etc. ;
- (6) Scholarships and Fellowships ;
- (7) Travelling Scholarships and Study leave ;
- (8) Grants for encouragement of research and post-graduate work and Technical and Professional education, in particular.

(4.6) In order to consider each individual case on its merit and make awards of grants to the different Universities, the Radhakrishnan Commission recommends the establishment of a University Grants Commission. Further, though the Constitution provides for Education including Universities in the State list, this is subject to co-ordination and determination of standards in institutions for higher education and research and scientific and technical institutions. Thus the Union Government has to assist higher education and research with a view to fulfilling the obligation laid down in the Constitution. The position as it exists to-day is as follows :—

A University can apply and obtain grant from—

- (a) the State Government ;
- (b) the Central Government through the Ministry of Education, or the University Grants Commission ;
- (c) the Council of Scientific and Industrial Research ;

or

the Ministry of Natural Resources and Scientific Research at the Centre ;

- (d) Indian Council of Agricultural Research ; and
- (e) Indian Council of Medical Research.

It can happen that the same scheme of post-graduate teaching or research may be submitted to the different authorities mentioned above. There may then arise unnecessary duplication of examining the needs for the case sent by a University and it may also lead to perhaps not entirely consistent recommendations through the agencies of these different authorities. In addition, there is also the possibility of over-lapping of grants for the same purpose from more than one authority. While the Central Government makes grants for specific purposes, the State Government may inadvertently take into account the same scheme in fixing the block grant. In such an eventuality State funds which could have been diverted to other channels or other Universities may go to a University which has already received assistance for the purpose from the Centre. We are pointing out such possible anomalies at the very outset because it is our desire that the State Government in consultation with the Central Government should evolve some common procedure which would avoid this kind of duplication. In the course of our inquiry, we discovered that in several cases schemes submitted by the different Universities to the Government of India were also submitted to us. This is perhaps, natural because the Universities are keen on getting funds for some of their schemes from one source or another. We, on our part, have to consider the possibility of duplicate consideration of such schemes and possible overlapping awards of grants. We have, therefore, considered it our duty to indicate in this Report the desirability of evolving some uniform procedure. In this connection, we consulted the University representatives when we met them and inquired whether they would appreciate the necessity of submitting schemes to the Centre through the State Government. Most of the representatives were averse to such a procedure as they felt that this would interfere with the autonomy of the Universities and increase Governmental interference. It would perhaps meet the needs of the situation if the Universities agree to send simultaneously to the State Government a copy of any scheme submitted by them to any of the Union authorities for grant. The State Government can then take up the matter with the Union Government, if necessary, indicating its own views regarding recurring commitments involved and arrive at an agreed formula for aid to that University, both by the State Government and the Centre. The University Grants Commission and the Council of Scientific and Industrial Research may also be requested to make available to the State Government detailed information regarding the schemes of the



different Universities in India considered by those bodies from time to time and the details of the general and specific grants made from time to time. This information is likely to prove most useful to the State Government for making awards of grant-in-aid to the different Universities in the State. If such information is not systematically obtained by the State Government, we anticipate considerable confusion in the assessment of grant-in-aid from the State funds to the different Universities in the State.

(4.7) The second question of a very general character that has got to be examined at this stage is one of fixing the relative responsibilities of the State and the Central Governments for the financing of University Education. If the recommendations of the Radhakrishnan Commission are taken literally, post-graduate education and research should become, practically, fully the responsibility of the Centre. In such a case, the State Government will be limited in its responsibilities for financing the University from mainly three points of view :—

- (a) maintenance of University administration ;
- (b) conduct of University business and meetings of authorities of the University ;
- (c) maintenance of post-intermediate departments ;
- (d) conduct of examinations up to the first degree.

If this extreme view is taken, the responsibility of the State Government to the Universities will be rather narrow and there will be perhaps considerable reduction in the commitments of the State Government for financing the Universities. The Radhakrishnan Commission has remarked, however, that this view should not be pushed too far. It is, therefore, necessary for the State Government to decide how far it is prepared to finance Post-graduate Education and Research.

(4.8) The State Government has already commenced paying block grants to the different Universities in the State. These grants have been made, without perhaps any detailed consideration in advance, of the actual needs in the light of any definite principles. It is not desirable to make drastic changes in the award of grant-in-aid at this stage. However, for planning future policy, it is imperative that this question of the spheres or degrees of responsibility of the State and the Centre for the financing of University education should be examined soon and a decision taken thereon. We refrain from making any specific recommendations on this point as it is largely a matter of policy which the State Government can decide for itself.

#### THE ACT OF INCORPORATION OF A UNIVERSITY AND ITS CONSEQUENCES.

(4.9) A University is established by an Act of Legislature and it becomes obligatory for the University to carry out faithfully and implement, the different provisions in the Act. The provisions made in the different University Acts are not all identical. Certain provisions in the Acts imply certain financial commitments to a University. If such a provision in the Act is to be implemented, finances must be forthcoming either from the State or the Centre or from donations. So long as donations are not forthcoming, the financial responsibility falls on the State Government. To the extent to which the Centre assists the Universities, the State Government is relieved of financial commitments. For the rest, the State Government is obviously committed. In this connection, it is necessary to point out that there are some provisions which are voluntary and some which are obligatory. Thus

to give an example, the conduct of post-intermediate teaching in the University of Poona is the responsibility put directly on the University of Poona and the implementation of this section becomes obligatory on the University. Similarly, different authorities of the University have to be constituted in accordance with the Act. Some of these Act have led to some of these authorities becoming unwieldy. This naturally results in increased expenditure on meetings of authorities of the University. Certain provisions require the calling of meetings of the authorities of the University which may not be strictly necessary. Thus the Report of the Committee appointed to make recommendations regarding the appointment of examiners generally goes through the Academic Council, to the Syndicate or the Executive Council. This requires the calling of a meeting of the Academic Council when it may not otherwise be necessary and this results in increased expenditure. There is then the second category of provisions which are voluntary and on which some degree of restriction may be placed. In this category, we may mention the creation of posts for departments in the Universities. The creation of each post or each Department has increased the financial commitment of the University. By the Government Circular, Education Department, No. USG. 1152-U of 18th September 1952, Government have informed the Universities that no posts should be created without the prior sanction of Government. In Chapter III, while considering the question of avoiding overlapping or duplication of work between the different Universities, we have recommended that Government should suggest to the Universities that departments or posts should be created by the framing of appropriate statutes and not by mere resolutions of the Court or the Senate. Such a procedure will enable Government to examine the financial implications also. It would be desirable to make this a statutory provision in the Act itself.

(4.10) Certain commitments of a financial character are automatically consented to by Government when certain statutes are framed in accordance with the requirements of the Act. To give an example, when a University makes statutes for conducting elections to its different authorities, each Statute has its own financial implication. It appears to us that such statutes have not perhaps been examined from the financial point of view. Without going into details, an example may be given to indicate the degree of financial commitment involved. The Bombay University is required to hold elections from the Registered Graduates' Constituency to the Senate. We examined the Statute and inquired of the Registrar the estimated expenditure. We learned that the University is required to spend 35 to 40 thousand rupees for preparing the electoral roll and for conducting the election. Such a sum is, in our opinion, rather a high price to pay and funds which could, with profit, be diverted to more useful academic purposes, are thus spent on formalities.

(4.11) An election to a University need not be made and is not required to be made as elaborate as an election to a legislature. It is certainly not necessary to provide or to keep or sell printed lists of voters. In any University election, it is expected that the general activity that accompanies an election to a legislature should not exist. In fact, there should be no canvassing for elections to authorities of the University. The best way of preventing it is to stop publishing and selling copies of lists of voters. Alternatively, it may be provided in the Act or the Statutes that only those voters who have signed in writing directly to the Registrar their desire to vote in any forthcoming election in response to an advertisement published by the Registrar should be put on the electoral roll. The number of such voters will be comparatively much smaller and the Electoral Rolls will be cheaper to print. The Election will be fairer, as only those who are keen will be eligible for voting. We, therefore, suggest to Government that all the Statutes including those relating to elections

so far made, be re-examined in the light of their financial consequences and suitable action may be taken to avoid unnecessary wastage. So long as Government has committed itself through the Act and by the Statutes made thereunder to a certain procedure or to a certain decision of the University, it becomes an obligation for Government to provide funds for meeting the necessary expenditure.

#### MINIMUM FINANCIAL OBLIGATIONS OF A UNIVERSITY.

(4.12) In our opinion, the establishment of a University leads to the following compulsory commitments :—

- (1) Administration ;
- (2) Meetings of authorities of the University ;
- (3) Affiliation and inspection of colleges ;
- (4) Conduct of examinations ;
- (5) Instruction up to the first degree where it is a direct responsibility of the University.

The expenditure on the administration of a University can be fixed within certain broad limits after taking into account its jurisdiction, but is likely to vary. Thus, if the post of Vice-Chancellor which is honorary is converted by Statute into a paid post, the increase of expenditure per annum may be as high as Rs. 30,000. As for meetings of authorities of the University, we have suggested elsewhere restriction of such meetings to the barest minimum consistent with efficiency and have recommended that suitable statutes be framed for the holding of such meetings. It is necessary in the interest of efficiency that colleges under the control of a University should be periodically inspected and action taken on the basis of such reports. The present practice in many Universities is to conduct triennial inspections of the colleges. When a college applies for affiliation or for the continuation of or extension of affiliation, a local enquiry has to be conducted and expenditure on this account is unavoidable. As for the conduct of examinations, so long as an examination result continues to count to the extent it does in our country, it is the primary responsibility of a University to devote its best possible attention to this question. No expenditure incurred on this account, for improving the efficiency in the conduct of examinations can be considered unreasonable or unnecessary. However, we should like to point out that the general practice should be to fix or levy examination fees on candidates in such a way that the income from the examination account is always in excess of the expenditure. In calculating expenditure, the expenditure incurred by the Universities on its administration which devotes the major portion of its time to examinations and part of the expenditure on meetings of authorities called for considering principally question pertaining to examinations should also be included in examination expenditure. Examined from this point of view, many Universities show very little excess of income over expenditure. In the case of Bombay, Poona, Gujarat and Karanatak Universities, the number of students appearing at lower examinations are sufficiently large to warrant some net saving which could be diverted to other University expenditure. This leads us to two conclusions. Firstly, it appears to us that there is some room for economy of expenditure in certain directions like payment to colleges, etc., for the conduct of practical examinations. It would be out of place in this report to go into greater details but we leave it to the Universities concerned to examine this question in such manner as they deem fit. Secondly, we feel that Universities should not hesitate to readjust examination fees if the examination account fails to show a reasonable excess of income over expenditure even after exploring all possible measures of economy.

### TEACHING COMMITMENTS OF A UNIVERSITY.

(4.13) Post-graduate teaching and research are the direct responsibilities of all the Universities. While it is obvious that large scale provisions in all subjects for post-graduate teaching and research need not be made in each University, it has to be recognised that the very test for the existence of a University is its contribution to the advancement of knowledge. It is, therefore, obligatory for a University to maintain at least a few post-graduate departments and maintain them well. We do not attach as much importance to the number of University Departments as to the standard at which these are maintained.

(4.14) The incorporation of a University by an Act of Legislature automatically implies that the State Government is committed to a certain minimum grant for the maintenance of a few post-graduate departments by the University. We have considered elsewhere the subjects which may be taught at all the Universities up to the post-graduate level. We shall make in the Chapters pertaining to each University detailed recommendations on the question as to which Department of teaching and research of the University should be financed by the State Government.

### POST-INTERMEDIATE TEACHING.

(4.15) Post-intermediate teaching in all Faculties is a direct responsibility of the University of Poona in the Poona area. The University of Baroda which is a unitary University conducts both Intermediate and Post-Intermediate teaching. The Gujarat University can take over post-intermediate education within the Ahmedabad area, but this has not so far been done. We shall, therefore not examine the possible financial consequences of post-intermediate teaching for the Gujarat University as we are required to consider the basis for the award of grants only for the next 5 year period. The Bombay University is being reconstituted according to the new Act. When it is so constituted, it can co-ordinate and regulate and control the conduct of post-intermediate education in colleges. The authorities of the Bombay University were not in a position to give us any concrete proposals then had in view. This is, of course, understandable as this work has to be undertaken after the authorities have been constituted in accordance with the new Act. Since most of the procedural requirements will take some time, we do not anticipate any significant financial commitments for post-intermediate education in the Bombay University at least during the next two years. The S.N.D.T. University Act provides that it shall be lawful for that University to conduct all post-graduate instruction, teaching and training in institutions or colleges recognised by, affiliated to or conducted by the University. Such teaching and training shall be imparted by teachers of the University. This provision is permissive and no significant increase in provision for post-graduate teaching and training is likely for this University in the near future.

### EXTRA-CURRICULAR ACTIVITIES.

(4.16) It is an important function of a University that it should pay adequate attention to physical training, collegiate and intercollegiate sport and inter-university students' unions and halls of residence. It is in the field of sport that students rub shoulders with one another and cultivate the team spirit. It is in the halls of residence that students meet each other and discuss problems not necessarily bearing directly on their studies. In all countries of the World, a hostel or a hall of residence is considered as a training ground for character. Apart from disciplined living, students are made to eat together and to arrange for functions, talks, and discussions.

of an informal character. Similarly, the halls of residence are supposed to be utilised to develop the histrionic talents of the students. It is, therefore, necessary that men with the necessary interest and width of experience should be appointed to control and manage the hostels. It is not possible to attract such men to these duties which are additional to their normal duties, unless adequate compensation in some form is provided. Further a certain amount of expenditure has to be incurred by the University on the maintenance of its halls of residence. It may be desirable periodically to subject these students to some form of medical examination, as many students in India, who could probably be cured of various ailments, suffer through neglect in the early stages. Similarly, unless adequate facilities are provided for games of different types, all students will not get the necessary opportunity to develop their physique and profit by contacts on the playground.

(4.17) Many students enter the portals of a University without knowing what the future holds in store for them by way of employment or provision for higher education. It is necessary that suitable and adequate information on these questions should be supplied to them through some agency of the University like the Employment or Information Bureau.

(4.18) Students' Unions and their importance in improving the general knowledge and outlook of students needs no elaboration by us. Such unions can never be made self-supporting. A certain degree of financial assistance has to be given for the efficient maintenance of such unions.

(4.19) We consider that all the activities enumerated above are important and necessary activities of every University or a college and we are of the opinion that adequate financial assistance must be forthcoming from the State funds for meeting these varied responsibilities of the Universities.

#### AUTONOMY OF THE UNIVERSITY.

(4.20) The Radhakrishnan Commission has remarked that, "The autonomy claimed by the Universities should be understood as implying a greater amount of self-control and self-discipline and a sincere desire to work for the higher standards of intellectual integrity and morality." (p. 451). The autonomy of the University obviously, also implies that it should make concerted attempts at obtaining funds for its recurring and non-recurring expenditure by its own voluntary effort by securing donations from philanthropic individuals, trusts and foundations. While we recognise that in the present socio-economic set-up of the country, a large portion of expenditure has to be met from funds placed at the disposal of a University by the State or Central Government, we do feel that the meaning and importance attached to the word "autonomy" disappears if the University depends 100 per cent. on financial aid provided by the State or Central Government. We, therefore, feel that all the Universities should at least obtain one-fourth of their non-recurring expenditure from donations collected by the University or given to the University in recognition of its good work. Similarly, at least a token of one per cent. of the total recurring expenditure of a University should be forthcoming from donations given to the Universities. In British Universities, the figures are very much higher. So are they in American Universities. But, having regard to the circumstances as they exist in India at present, we have recommended these minima on an *ad hoc* basis. Even a nominal amount secured by the University in this way has significance as it will make an autonomous body realise that one of its duties is to collect

donations for its recurring and non-recurring expenditure. In this direction, it is perhaps the Heads of University Departments who can do a lot and they should regard some work in this direction as a part of one of their voluntary duties.

#### CONCLUSION.

(4.21) The analysis of the problem, therefore, leads us to the conclusion that the ideal state of affairs would be for the State Government to make a block grant to each University for its general administrative and other expenditure and another block grant for the maintenance of a small number of teaching departments, the details of which will be indicated in the appropriate chapters on the Universities. If any University desires to add to its activities without running into a deficit, it should always be at liberty to do so. Similarly, when grants are forthcoming for both recurring and non-recurring expenditure by way of donations or grant-in-aid from the Centre, the University can plan and adjust its Departments in accordance with the conditions of the award of the grant, but it is desirable to make it clear to every University that any commitment on its part, which would involve its running into a deficit immediately or in due course due to rise in expenditure, should always be communicated to the State Government in advance, so as to enable the State Government to consider how far it can meet such increase in expenditure. The stability and strength of the framework of a University depends largely on its being able to present a balanced budget or preferably by showing a small saving. If such savings are shown by careful economy without impairing the efficiency of teaching and examinations, the block grants should not be reduced. The University concerned should be permitted to fund such savings separately and build up reserves which would be useful at a later stage.

## CHAPTER V.

**Growth and Development of Government Colleges.**

## INTRODUCTION.

(5.1) One of the terms of reference to our Committee is to examine how best Government could co-operate with the Universities in the matter of organization and co-ordination of the work of Government colleges and that of the Universities, avoiding at the same time administrative difficulties. In order to examine this question, it becomes necessary to give a brief historical review of the growth and development of Government colleges and explain clearly how they stand to-day. In addition, it is necessary to point out clearly the work of the University that would become obligatory for a Government college on the basis of the Act of Incorporation of the University concerned. Voluntary co-operation which leads to better organization of University work and reduces duplication and wastage is always possible between a Government College and the University, particularly in the spheres of post-graduate teaching and research. Such co-operation is also being extended in varying degrees by different non-Government colleges. A review of this kind of work together with a review of its limitations is necessary for examining the whole question.

## HISTORICAL.

(5.2) During the last 100 years, Government have opened several educational institutions giving facilities for the training of students up to the first University degree. The object of a Government institution was firstly to provide educational facilities which could not, in the initial stages, be provided by private institutions or by the University itself. At that stage, the University worked largely as an examining body. The second step consisted of opening Professional colleges for training students for University degrees in professional subjects. After Independence, several Indian States merged with the State of Bombay and some of the Colleges situated within their jurisdiction and run by the then State Governments, have been taken over by the Government of Bombay. All the Government colleges are not under the control of the same Head of the Department. Thus while the Arts, Science, Commerce and Law Colleges are under the control of the Director of Education, the Engineering Colleges are under the Director of Technical Education, the Medical Colleges under the Surgeon General with the Government of Bombay and the Agricultural Colleges under the Director of Agriculture. The procedural requirements of the different Departments are not necessarily the same. Consequently, one type of set-up which may be administratively feasible for one Department, may cause difficulties in another Department. In view of this fact, it becomes necessary to consider the needs of the colleges in relation to the administrative Department under which they function. We give below the list of Government colleges, the subjects they teach, the University to which they are affiliated and the Controlling Officer of Government who is responsible for their administration :—

Serial No.	Name of College.	Controlling Authority.	Subject taught.	University.
1	Elphinstone College, Bombay.	Director of Education ...	Arts and Science.	Bombay.
2	Institute of Science, Bombay.	Education Department...	Science ...	Do.
3	Sydenham College of Commerce and Economics, Bombay.	Director of Education ...	Commerce ...	Do.

Serial No.	Name of College.	Controlling Authority.	Subjects taught.	University.
4.	Grant Medical College, Bombay	Surgeon-General with the Government of Bombay.	Medicine ...	Bombay.
5	Veterinary College, Bombay ...	Director of Animal Husbandry and Veterinary Science.	Veterinary Science.	Do.
6	Secondary Teachers' Training College, Bombay.	Director of Education ...	Teaching ...	Do.
7	Government Law College, Bombay.	Do.	... Law ...	Do.
8	Ismail Yusuf College, Bombay..	Do.	... Arts and Science	Do.
9	College of Engineering, Poona...	Director of Technical Education.	Engineering ...	Poona.
10	College of Agriculture, Poona...	Director of Agriculture.	Agriculture ...	Do.
11	B. J. Medical College, Poona ...	Surgeon-General with the Government of Bombay.	Medicine ...	Do.
12	Rajaram College, Kolhapur ...	Director of Education ...	Arts and Science.	Do.
13	S. M. T. T. College, Kolhapur...	Do.	... Teaching ...	Do.
14	Karnatak College, Dharwar ...	Do.	... Arts and Science.	Karnatak.
15	College of Agriculture, Dharwar.	Director of Agriculture...	Agriculture ...	Do.
16	S. T. College, Belgaum ...	Director of Education ...	Teaching ...	Do.
17	Gujarat College, Ahmedabad ...	Do.	... Arts and Science.	Gujarat.
18	L. D. College of Engineering, Ahmedabad.	Director of Technical Education.	Engineering ...	Do.
19	B. J. Medical College, Ahmedabad.	Surgeon-General with the Government of Bombay.	Medicine ...	Do.
20	M. N. College, Visnagar ...	Director of Education ...	Arts and Science.	Do.

There are several institutions which are not Government Colleges, but whose co-operation and assistance are likely to reduce over-lapping of facilities and improve Higher Education. Among such Institutions are the Deccan College Post-Graduate and Research Institute, the Kannada Research Institute, Dharwar, the Tata Institute of Fundamental Research, Bombay, the Physical Research Laboratory, Ahmedabad, etc. The utility of such Institutions *vis-a-vis* the appropriate University and the extent to which Government can move or request them to provide additional co-operation, will be considered in the chapters relating to the different Universities.



### THE REQUIREMENTS OF THE NEW UNIVERSITY ACTS.

(5.3) According to the Poona University Act, the Government Colleges within the Poona area become Constituent Colleges and their working even at the post-intermediate stage is regulated by the procedure laid down by the Poona University. There is no question of co-ordination as far as these colleges are concerned, as there are no other Government or private colleges teaching the same subject. The Rajaram College, Kolhapur, enjoys the status of an affiliated college up to the first degree stage and as such does not present any problems. If the University of Poona decides to arrange post-graduate teaching on a zonal basis, at centres outside Poona such a decision will create problems about the degree of possible co-operation, for mofussil colleges.

(5.4) The Gujarat University has powers to take control of even post-intermediate teaching within the Ahmedabad area, but it has not done so and is not likely to do so for some years. As for post-graduate teaching, it is possible to conduct the same in the Gujarat University area in an institution affiliated to the University in subjects specified by the appropriate Statutes.

(5.5) In the Bombay University, it is possible for the University to co-ordinate and regulate post-intermediate education. Post-graduate education and research remain the direct responsibility of the University.

(5.6) The Baroda University is a unitary University and there are no Government colleges in the Baroda University area, except the Medical College.

(5.7) In the Karnatak University, the position of post-graduate education is similar to that in the Gujarat University. The Karnatak University cannot take direct academic control of post-intermediate education.

(5.8) There are no Government colleges affiliated to the S. N. D. T. Women's University.

### SET-UP OF GOVERNMENT COLLEGES.

(5.9) The general set-up of all the Government colleges follows generally the same uniform pattern. Recruitment in all the institutions has taken place in the past almost entirely for purposes of under-graduate teaching. It was not one of the duties of the persons recruited, either to do post-graduate teaching or guide and conduct research work. Contribution to the advancement of knowledge has never been one of the considerations for which weightage is given in promotions. In fact, very little facility for research has been generally provided. Under the circumstances, most of the institutions grew as routine teaching institutions. The staff, therefore, developed a narrow professional outlook and felt that their principal occupation was to deliver lectures and take what interest they could in some of the extra-curricular activities. There was very little distinction made between Class I, Class II and Class III officers in the apportionment of teaching work to the different classes. This created in the subordinate staff a kind of grievance and they appeared to feel that they were doing the same type of work as those in the higher cadres. Generally, the best qualified person was supposed to be recruited to higher cadres to handle the more advanced classes. He does maintain some contact with the lower classes also, to give a tone and a shaping to the outlook and approach of students to the subject.

concerned. It is our view that full justice can never be done to post-graduate teaching and to a very large extent even to post-ntermediate teaching, unless the teacher concerned is keeping himself abreast by being actively engaged in some kind of research or investigational work. It is very necessary that this aspect should always be stressed in recruiting teachers to the higher cadres. To meet this requirement, Government, on the recommendation of the Administrative Enquiry Committee appointed under Government Resolution, Finance Department, No. 6745/33 of 28th November, 1946, decided to keep only Class II posts for all the Departments of a College and provide special contract posts for which men of outstanding ability were to be recruited for guiding and directing post-graduate teaching and research. The same Committee had recommended the appointment of a Principal by selection so that the organisational set-up of Government Colleges could be improved and they could be made to serve as nuclei for post-graduate teaching and research. We understand that the procedure suggested by the Administrative Enquiry Committee has been tried without much success and is now held in abeyance.

(5.10) A full measure of co-ordination like the one attempted in Poona is not likely to be attempted in Bombay or in Ahmedabad in the next few years to come. If, however, such an attempt is made, there will be considerable disturbance to the existing set-up of Arts, Science and Commerce colleges. Thus if the available teachers are pooled and ranked, so that the best available teachers only are permitted to take post-intermediate lectures, it is likely that some Government College teachers may be left out. In that case, a person recruited and confirmed in his appointment will be left without his full load of work. This example is given to indicate some of the difficulties that may result from a full measure of co-ordination. As a consequence of co-ordination, it may become necessary for a teacher in the Elphinstone or Sydenham College to lecture at a place other than his own College, or to admit to the lectures he delivers, students from other colleges. Such steps lead to difficulties of arrangement of time-tables and perhaps in some cases to unduly long detention of the teacher concerned. A more serious consequence of such co-ordination between colleges situated far apart will be that the contact between teachers and pupils will tend to become less personal and the corporate life of the colleges will be adversely affected.

#### SPECIAL PROBLEMS.

(5.11) Even for education up to the post-intermediate stage, the University authorities may desire to introduce special features. Thus Universities may recommend the introduction of tutorials at the post-intermediate stage. Such tutorial work will necessarily put the staff of the College to extra strain and it will be necessary to recruit extra staff. This new experiment can be most successfully tried in a Government college and to this extent, Government colleges can extend their co-operation to the University. Further, it may be necessary to provide special courses of lectures of the post-intermediate standard or laboratory facilities to University students who are not necessarily students of the Government college. The library of a Government college may prove useful to University students and some measure of co-operation and co-ordination of library facilities would be possible.

#### STAFF.

(5.12) One of the difficulties that the Universities experience is due to the existing practice of transfers in Government colleges. A member of the staff of a Government college can be transferred to another Government college at short notice on

administrative grounds. In the case of professional colleges, it is possible to transfer a teacher from the College to the Government Department and vice-versa. It has been represented to us that such transfers cause considerable dislocation of University work even at the post-intermediate stage. A person coming from a Department of Government to the College for the first time has little or no experience in the field of education and has to grope in the dark for some time. During this period, his services cannot be fully utilised even for post-intermediate co-ordination, and if he happens to be appointed the Professor-in-charge or Head of the University Department concerned, additional organizational responsibilities are thrown on him and he is called upon to take decisions on matters on which he has little or no experience. This difficulty can be avoided by taking men from the Departments as Special Officers under training or in a subordinate position and then entrusting them with the full measure of responsibility. It is also desirable to adopt the general practice of transferring persons from or to Government colleges only during the summer vacation, except when there are emergencies of a special character.

#### POST-GRADUATE WORK.

(5.13) There has been no organized or planned post-graduate teaching and research in Government colleges. In fact, research in Government colleges has grown in a haphazard manner with the result that we have to-day an unconnected pattern of post-graduate work being done in the different Government colleges. The general practice so far has been to permit a teacher of a Government College to apply for recognition as a post-graduate teacher in the University when this teaching load at the under-graduate level is not high enough to prevent the University from granting the recognition. In this way, qualified persons in different colleges regardless of their status in the set-up of a Government college have applied for post-graduate recognition. In some cases, where the University authorities have found it hard to find a qualified teacher for post-graduate work, the authorities have approached the Principal of the College or the teacher himself has approached the Principal in order that the necessary facilities may be provided for students. In such exceptional cases, an additional post of an Assistant Lecturer has, some times, been created in the Government College concerned and the teacher relieved of a part of his intermediate and post-intermediate teaching work to enable him to conform to the requirements of the University. The same procedure has, more or less, been followed for the recognition of teachers in Government colleges for guiding research. There has been some post-graduate teaching and research activity in the Arts and Science Colleges, in Colleges of Agriculture and Medicine, and in Engineering Colleges.

(5.14) The teacher recognised for post-graduate teaching delivers a course of lectures on a paper or part of a paper for the Master's degree. If students are also enrolled in his own college and if it is a Science or a professional subject, he also directs the laboratory work or drawing office work. Before a University embarks on post-graduate instruction in a subject, it takes account of the number of teachers for teaching the subject and the laboratory, drawing office, hospital and other facilities that are available. Generally, there is a paucity of qualified teachers for giving instruction at the post-graduate level. This is more serious at the research stage. So, if a teacher who is recognised and entrusted with such work, is transferred from the College on administrative or other grounds, the whole post-graduate instruction is sometimes completely dislocated. In some Universities, the teachers doing post-graduate work, are paid some remuneration and this remuneration is retained by teachers of non-Government institutions.

But teachers in Government colleges are not allowed to accept any such remuneration without specific orders of Government. There is thus neither official recognition of the quality and quantity of post-graduate work done by a Government college teacher nor is he free to enjoy financial compensation which others in sister institutions are permitted. This naturally creates in a Government college teacher a kind of apathy and indifference to all post-graduate work. Apart from remuneration, we consider that the psychological satisfaction of receiving special mention in some form or other for this labour of love undertaken by him or any recognition for promotion to higher posts, is a very important factor in maintaining the zeal and zest of the teacher for scholarship and advanced study. The distressing effect of non-recognition in any form by Government of advanced teaching or research was most visible to us when we met the staffs in some Government colleges. In one college, one of the teachers told us that he had no interest and had no desire to do either research or advanced study as neither would count for his future in the college. We consider it absolutely necessary to devise some machinery to remedy this state of affairs.

(5.15) The number of post-graduate teachers contributed for the work of University has varied from Government college to Government college and from time to time depending on firstly the availability of men and secondly their desire to volunteer themselves for doing this kind of work. The University authorities have never been in a position to depend on the availability of a certain minimum number of teachers for post-graduate work or research, on Government colleges for reasons mentioned earlier. Consequently, most of them feel and quite justly that it will not be to the better interests of the University to depend on Government colleges for co-operation and assistance in the planning and development of their post-graduate teaching and research Departments. Even with academic control resting with the Universities in accordance with the new Acts, some of the representatives of the Universities told us that unless they had the power to appoint and dismiss persons, they would not be able to utilise the services of persons for University work. This is a gospel of despair, the cause of which may be the unplanned development of post-graduate Departments in Government colleges. We do, however, feel that there is a way out and useful co-operation can always be extended to the Universities, without any serious administrative difficulties.

#### POST-GRADUATE TEACHING AND RESEARCH IN PROFESSIONAL SUBJECTS

(5.16) The Universities, as they are at present constituted, have been concentrating mainly on developing their Departments in the Faculties of Arts and Science, except in the case of Baroda and Bombay. This is understandable because the Departments in these subjects are comparatively less costly and most of the persons who manage and run a University, are persons with some experience or interest in subjects belonging to the Arts or Science Faculty. Further, even in Government colleges, there is considerable paucity of men who have done higher work and who can give the lead or guidance for the opening of post-graduate teaching and research Departments in the University. A University, in virtue of its very name should have all human problems within its orbit. Training students at the post-graduate level and doing original work is a national necessity particularly in the fields of Agriculture, Engineering and Medicine. In all these subjects, the only colleges available in a University are mostly Government colleges. The Government can co-operate in the organisation of post-graduate work particularly in these colleges. Without men of the highest type of training in these branches of knowledge, planning and development of the country cannot progress with efficiency and speed. Without fulfilled post-graduate teaching and research

Departments in these applied sciences, the necessary atmosphere for giving a balanced and realistic outlook to the post-graduate students entering the University and for the general development of the University in a coherent manner, is almost impossible. Giving the necessary attention to higher teaching and research in applied sciences is really the basic need of our Universities not only from the national point of view but also from the point of view of the individual Universities themselves. In this sphere, therefore, Government has a special responsibility.

#### ADMINISTRATIVE SET-UP OF GOVERNMENT COLLEGES.

(5.17) As matters stand to-day, the procedure adopted for running Government colleges is not specially adapted to their needs. While uniformity of machinery is very desirable, it has caused a certain amount of unavoidable delay in deciding matters and, in certain cases, has resulted in the decisions becoming unrealistic. A proposal emanating from the college has to go through different channels and even in minor cases, considerable time is required in getting a decision. This cumbersome process does not work satisfactorily in an educational institution which is to be dynamic in its general organizational set-up. Further, the Universities recognise the Head of a Department as the principal guiding factor for the organisation and development of a Department. This practice exists all over the world. It is but natural, because expert advice in technical matters or in specialised matters can only be sought through an expert or a specialist. Such specialist advice can only be given by the professor. This fact assumes considerable significance in problems pertaining to post-graduate education and research. A good deal of latitude must be given to the professor to express his views or give his plans for the development of his Department for post-graduate teaching and research. Further the Head of the Institution must also be a person with adequate experience in this sphere if he has to modify recommendations of the professor. A university recognises, in its general framework a Professor and entrusts him with certain duties and responsibilities. He is also called upon to give advice to the University on matters pertaining to his subject in the sphere of post-graduate teaching and research. It is not possible in the present set-up of a Government College for a teacher to engage in either of these duties of his. He cannot independently of his Principal decide about the enrolment of students, report about disciplinary action to be taken against the students, make recommendations for the award of scholarships or alter the time-tables in a convenient manner. Such and similar decisions are required to be taken by him directly if he is to work as a Professor in charge of a University Department doing post-graduate teaching. Further, the hours of work that he plans for his Departments may have to be different from the general college hours. It may not be possible for him to comply with this requirement. If, however, the Head of a Department in a Government College is a person who possesses the necessary qualifications and experience as indicated in Chapter III earlier, for being appointed a University Professor, it would not be difficult for the Principal of the College to afford him every facility that he needs to discharge the duties entrusted to him by the University. The methods for avoiding many of these administrative difficulties without much alteration in the existing structure will be examined in detail in the next chapter.

(5.18) The Institute of Science, however, stands in a class apart. Ever since its inception, Government had laid emphasis on higher teaching and research. This Institute should become an asset to the University of Bombay and its Departments can, with proper co-ordination, become easily, University Departments in science subjects.

## CHAPTER VI.

**Re-Organisation of Government Colleges.**

## INTRODUCTION.

(6.1) In order that there is complete academic co-ordination between the activities of Universities, Government Colleges and other institutions and in order that this should be realised with no administrative difficulties, we have thought it necessary to make suggestions which, in our opinion, are of a basic character. With regard to Government Colleges, if some of these suggestions are implemented, it will become possible to achieve better co-ordination and to avoid overlapping and wastage. It is, however, pertinent to state that the general set-up of a Government College continues to be the same as it was before 1947. These colleges need to be overhauled to play a more significant role in the development of the various Universities in the State, if their existence is to be justified. To facilitate detailed considerations of questions arising from the above observations, we have thought it useful to discuss this question firstly in a general manner and then with specific reference to certain Colleges about which Government will have to take its own decisions.

## ORGANISATION OF TEACHING AND RESEARCH.

(6.2) It will be necessary for Government to decide the subject or subjects in which a Government College should provide facilities for post-graduate teaching and research. If necessary, Government can decide that no post-graduate work shall be done in a College except as work of pleasure by the teachers concerned on a voluntary basis. In such cases, it is open to the Universities to make their own arrangements for post-graduate teaching and research independently, with their available resources. When this is done, facilities provided at present, in a Government College which is subsequently restricted to do only degree teaching, may become superfluous. To avoid this difficulty, it is possible for Government to transfer both the person or persons concerned and the facilities to another Government Institution, in which they decide to make available post-graduate teaching and research facilities. When once Government decides to provide post-graduate teaching and research facilities in a particular college, Government should continue to maintain those facilities. For this purpose, it will be necessary either to avoid transferring persons doing post-graduate teaching and research to other colleges or to replace persons transferred, by men of the same type of qualifications and experience. We realize that this is likely to cause administrative difficulties. Thus, a senior officer may, on promotion, be transferred to an administrative post or to the Principalship of another college. A new person posted in his place at the old Institution, may not have the requisite qualifications. This difficulty can be avoided by not transferring the person concerned. But this would create a sense of frustration in the person who was looking forward to a higher appointment or a higher status. A possible solution of this question lies in making equal, the emoluments of all teachers doing post-graduate teaching and research and carrying the same designation. The promotion to a Principalship may be considered as an addition to the responsibility of the person concerned which he has to shoulder at a certain period of his service almost automatically. The only additional benefit to such a teacher appointed as Principal should be provision of free quarters. The Principal in this new set-up will do only general and overall supervision work in addition to his normal duties as a teacher and Government

will have to provide in each Government College an Administrative Officer of Gazetted rank to attend to office and accounts work. If this is done, no teacher who is a post-graduate teacher and a research guide would be tempted to leave his institution just to gain the designation of Principal since he will know that in his own institution his turn will come in due course. The arrangement suggested above will have the advantage of utilising the Principal fully for the work of post-graduate teaching and research. The Principal will not then be only a half time teacher as at present. It will also not be necessary to appoint an extra Lecturer in the Department to which the Principal belongs, as at present, thus eliminating the major headache of the Department at the time of appointments or transfers of Principals. It is quite true that in certain cases, a transfer may become necessary on administrative grounds, as Government may require the services of a particular person at some other place. In such a case, Government should take care to fill the post falling vacant in good time and see that the new person recruited has specialised in the same branch of study and has qualifications as high as those of the person who vacates the post.

Apart from appointments to the Principal's post, the department should not transfer any of the teachers at short notice. If any such transfer is contemplated, the Department should take care to fill the vacancy arising by a transfer or retirement by transferring or recruiting a person with corresponding qualifications. There should not be any time-lag between the occurrence of a vacancy in a senior post and its being filled. If the new person appointed to fill a vacancy does not have the qualifications and experience of the previous incumbent, the University authorities may not recognise him for post-graduate teaching or research. If this happens, research students or post-graduate students may be left without a proper guide.

(6.3) In the light of the foregoing remarks and on academic grounds, we hold the view that as far as possible, transfers of the Head of a Department in a College, who is doing post-graduate teaching and who is actively engaged in research, should never be made. An Institution or a Department grows with a person. Either in a Government College or in the set-up of a University, it is the individual Professor who matters more than anything else. Further, such a person needs time to take root at a place and give shape to a Department which he should regard essentially as his own creation and look forward to working continuously in it. It is then and then only that a school grows, traditions are created and both the teacher, the body which finances it and the students benefit. Hence, there can really be no greater pleasure to a first class scholar, than in being told to work up and build a Department for a subject. It would, therefore, be advisable to keep a person long enough in one place and tell him in unequivocal terms that it is for him to make the Department and that he is not likely to be transferred. Further, when such a person retires, a realistic view of the situation has to be taken. If a good Department with the necessary atmosphere for post-graduate teaching and research has been created by the retiring Officer, Government should spare no pains to recruit a person who can replace the retiring person with credit and, if necessary, they should not fail to offer sufficiently attractive terms to get the new person. If this is not done, a Department built with great effort by the person who retires may, within a very short time, lose both its level and efficacy. It is not desirable for us to give any specific examples, but lack of such an approach has resulted in the dwindling of the facilities that once existed in some Government Colleges.

(6.4) As we have remarked, certain posts in certain Government Colleges should be earmarked for being filled by persons, qualified to do post-graduate teaching or by persons qualified to do post-graduate teaching and research. Such posts

must be filled by transfer or promotion, always by persons who hold the appropriate qualifications. The Universities must be told of the strength of such staff which a Government College is going to maintain in its different Departments and the specific extent to which their services would be made available for post-graduate teaching, or post-graduate teaching and research. Such a clear arrangement will automatically lead to a final readjustment of the provision for post-intermediate, and intermediate teaching also. The Universities would know the extent to which services of Government college teachers would be available and they will not then have justification to complain that the number of Government College teachers available for post-graduate teaching or research is undependable.

(6.5) In view of the position explained above, it is necessary to consider the staffing of Government Colleges. Effective co-ordination of post-graduate teaching between Government colleges and the Universities is hardly possible, unless the basic qualifications, designations and pay scales of post-graduate teachers in Government Colleges and in the Universities are identical. In recruiting such teachers it is not desirable that Government should impose the normal age limits applicable generally to new entrants in Government service. While a maximum age limit of 30 years would be suitable for lecturers, an age limit of 40 years for Readers or Assistant Professor and 50 years for Professors should be laid down. Simultaneously, it is necessary that the present designations in Government Colleges should be re-organised on the basis of those mentioned by us earlier (3.19). Thus ordinarily for teaching up to the Degree stage, Junior Lecturers or Tutors and Lecturers with Assistant Professors in one or two important subjects should suffice. If Hons. teaching is done for the first degree, there should be an Assistant Professor or Reader in the corresponding subject as the head of the Department. A Professor should never be appointed in a Government College except as a measure of co-ordination with the University. The senior Professor or Reader in the College concerned should be normally the Principal, assisted by an Administrative Officer of Gazetted rank. The Principal should not be lower in rank than a Reader. Thus, college teaching for the 1st degree without Honours in any subject will be staffed only by Lecturers and Junior Lecturers and Tutors and only the Principal will be a Reader. In a College teaching up to Honours, there will be Assistant Professors or Readers for the Honours-subjects only and Lecturers and Junior Lecturers or Tutors for other subjects the Principal being the senior most Reader or Professor. The present pay scales offered to Assistant Lecturers and Lecturers are not attractive enough since the starting salaries and scales of increments are low. The scales proposed by us in Chapter III (3.26) for Readers, Assistant Professor, Lecturers, Junior Lecturers and Tutors have a more attractive starting pay, more liberal scales of increment but lower maxima. The pay scale for a Professor is deliberately proposed to be more liberal for obvious reasons. We recommend, therefore, that for fresh recruit, these new designations, basic qualifications and scales of pay be made applicable and the designations of the present incumbents be revised, their present pay scales being considered personal to them. As a measure of harmony with the re-organisation of staff in Government Colleges, as proposed above, Universities should be requested to lay down the same pattern of staff for private colleges so that complete co-ordination at the post-graduate level will be easily achieved.

In deciding the degree and extent of post-graduate teaching or research facilities to be provided in the Government College, it may be necessary to consult the University. Several questions can easily be decided by discussion across a table, but may never materialize by mere correspondence. We, therefore, suggest that



Advisory Committees on the lines given below be constituted for each Government College. The function of the Advisory Committee should be exclusively to tender expert advice on matters of policy in so far as it is related to post-graduate teaching and research with specific reference to co-operation with the Universities. Such an Advisory Committee should consist of the following :—

- (1) Vice-Chancellor of the University concerned.
- (2) Head of the Government Department concerned.
- (3) Two experts in the subjects taught in the College, one to be nominated by the Syndicate and one by the Head of the Department concerned from amongst the Heads of Departments in the College.
- (4) The Principal of the College. (Ex-officio) Member-Secretary.

(6.6) All requirements of the University for any scheme of post-graduate teaching and research for which the College concerned must provide facilities and all suggestions of the Principal in the matter should be placed before such a Committee which may meet *once a year* and the recommendations of the said Committee should be forwarded to Government before September of the year, so that the necessary action can be taken in good time for the following year.

We shall examine the specific questions pertaining to individual Government Colleges where necessary, in the Chapters pertaining to the University, within whose area the Government College is situated.

#### ARTS AND SCIENCE COLLEGES AT THE HEADQUARTERS OF UNIVERSITIES.

(6.7) The Karnatak College, Dharwar, the Gujarat College, Ahmedabad, the Elphinstone College, Bombay, the Ismail Yusuf College, Jogeshwari, and the Institute of Science fall in this category. The Karnatak University has still to make considerable progress for shaping into a well-organized University. Therefore, the Karnatak College, Dharwar, will have to be strengthened to provide the necessary nucleus of post-graduate teaching and research Departments. The same argument applies with equal force to the Gujarat College, Ahmedabad. In the new set-up of the Bombay University, the Elphinstone College, Bombay, will occupy an important place for the organisation of post-graduate teaching. The Institute of Science, as has been already stated, should constitute the back-bone of post-graduate science departments of the Bombay University. In all those cases, there should be around co-operation and co-ordination between the University and the college concerned.

(6.8) A certain degree of co-ordination in the work of the College to make itself more useful for post-intermediate education and particularly for post-graduate education becomes necessary when teaching or organisation requires the co-operation and co-ordination of a number of sister Departments in a College. It is, therefore, desirable to constitute for each College, a College Council consisting of all the Heads of the Departments in the College doing post-graduate work with the Principal as Chairman. All academic matters pertaining to post-graduate teaching and research in the College including necessary budget provisions for the different Departments of the College should be discussed in the College Council. The recommendations of the Council with the Principal's remarks should be forwarded to Government as usual. Where the recommendations involve matters pertaining to the same form of co-ordination as visualised by the University, the recommendations should be sent to the College Advisory Committee.

## COLLEGE OF COMMERCE AND LAW.

(6.9) Government is, at present, running only one College of Commerce and one College of Law. These are both situated within the jurisdiction of the University of Bombay. The degree of co-operation that is possible between these Colleges and the University of Bombay will be examined in the Chapter on the Bombay University. The University of Bombay has made proposals for the institution of a section in Industrial Economics and Industrial Administration at the School of Economics and Sociology and are also contemplating opening a Department of Law. The new section proposed to be opened at the University School of Economics and Sociology, includes subjects which are to some extent taught at the Sydenham College of Commerce. Detailed remarks on these points will be found in the appropriate Chapter in Part II of this report. It is sufficient to remark here that a great measure of co-ordination leading to considerable economy in administration coupled with improved efficiency of academic instruction can occur by co-operation between the existing School of Economics in the University of Bombay and the Sydenham College of Commerce and Economics. It is also useful to note that the Government Law College can very well serve as a nucleus of the University Department of Law if the College is so organized.

## THE ISMAIL YUSUF COLLEGE, JOGESHWARI.

(6.10) The Ismail Yusuf College, Bombay, becomes a constituent college of the University of Bombay. This is a college which can be utilised by Government to develop on a State-wide basis, facilities for post-graduate teaching and research in languages like Urdu, Persian, Arabic and in Islamic History and Culture. Although there can exist other Departments in the College which may be developed as necessary, it is very desirable that special facilities for the branches of knowledge we have indicated are provided by Government on its own initiative in this college. Assuming that such a step will be taken by Government in due course, we recommend that none of the Universities in the State should make any arrangements or provide any post-graduate teaching or research facilities in these subjects.

## VETERINARY COLLEGE.

(6.11) There is only one college in the State of Bombay teaching Veterinary Science up to the degree standard and that is controlled by the Director of Animal Husbandry and Veterinary Science. This College is at present engaged in teaching up to the degree standard. Since it is the only College of its type, no special problems will be created by the powers of co-ordination conferred on the University of Bombay in the New Act. It may, however, happen that the University may lay down more rigorous standards of qualifications for the staff and the University may require these to be fulfilled. The question that arises with reference to this College is whether facilities should be provided for post-graduate teaching and research in Veterinary Science. It may perhaps not be possible to undertake this kind of work for some time. We are of opinion that the problem of providing such facilities is not likely to arise within the next few years. There is, however, another problem. There are a number of subjects which may be considered to overlap in scope with corresponding subjects in other faculties. To give an example, certain aspects of Zoology may be taught in the Veterinary College, as a part of the course in Veterinary Science. These aspects may also be important in the study of Zoology in the Faculty of Science of the University of Bombay. It may happen that the person engaged in doing the work in the Veterinary College may be called upon by the University to undertake some teaching work for the post-graduate courses in

Zoology. Further, he may also be called upon to take some research students under him. Whenever such questions arise, they become essentially questions or problems created by the availability of a particular individual in the College. In all such cases, it is in the interest of the College, the Government, the students and the University that full facilities for this kind of co-operation should be given. In doing this, it may be necessary to relieve the person concerned of some of his routine undergraduate teaching. This may necessitate the appointment of a junior Member of the staff. Such a step should be taken and the University may be called upon to make the financial contribution to the College concerned in proportion to the amount of the work that the person concerned does directly for the University. This method of adjustment will solve to a very large extent the financial aspects of the question. Further, the University authorities will also consider very carefully the desirability of asking for the services of such a person taking into account the financial commitments involved.

#### ENGINEERING COLLEGES.

(6.12) The amount of attention given to Engineering Research in all progressive Countries in the World is phenomenal. Our Universities should also, therefore, take up the question of post-graduate teaching and research in Engineering very earnestly. Till recently most of the Colleges of Engineering were Government Institutions. The University, therefore, felt inclined to leave initiative to Government. Now there are some private or University Colleges of Engineering in addition to Government Colleges. To give a lead to the Universities in the matter, we hold the view that a definite beginning of both post-graduate teaching and research in Engineering should be made at the Government Engineering Colleges. It should be possible to get substantial financial assistance for this work from the Central Government. It should be possible to submit such schemes of work from Engineering Colleges even to the University Grants Commission. Post-graduate work is the direct responsibility of a University and although post-graduate work in Engineering is done in a Government College, it should be considered as University work. If any technical difficulties come in the way, Government should encourage the Universities to submit schemes of post-graduate teaching or research in Engineering to the University Grants Commission and allow them to use the funds so obtained for developing available facilities in a Government College.

(6.13) The teaching of post-intermediate classes in Engineering within the Poona University area is the direct responsibility of the University of Poona. But since there is only one Engineering College, viz., the College of Engineering, Poona, the set-up of any scheme of co-ordination is not likely to cause and has not so far caused any complication in the working of the College. It is always open to the University to lay down qualifications, number of hours of work, etc., for the teachers or the minimum laboratory facilities even for an affiliated College. Therefore, any such conditions imposed on the Poona Engineering College will not, in any way, be different from those under the old scheme of things.

(6.14) In the Gujarat University area, there has not been so far and there is not likely to be in the near future any scheme of co-ordination. Therefore, no special problems will be created for post-intermediate education in Engineering at the L. D. College of Engineering, Ahmedabad.

(6.15) As regards post-graduate teaching and research, we are informed that some facilities have been created for post-graduate teaching at Poona in Communication Engineering and Applied Mechanics. We also understand that post-graduate teaching in Electrical Engineering for the M. E. course is being undertaken at the L. D. Engineering College, Ahmedabad.

(6.16) We recommend that as a first step, the Departments which have already commenced doing serious and regular work, should be strengthened by adding to any limited facilities that may exist. Secondly, Government should decide the subjects in which they would organize post-graduate teaching and/or research in the two Engineering Colleges. Expansion of these facilities may then be considered by Government in consultation with the Universities and in the light of financial assistance available from the Union Government.

(6.17) As a first step towards the attainment of higher standards in Government Colleges of Engineering, it is necessary for Government to insist on the Principal and the senior staff doing some research. Otherwise, the tone of undergraduate teaching cannot be raised to the desired level. Inter-University Co-ordination for post-graduate research between Colleges of Engineering can be achieved by the Director of Technical Education who is a Member of the Senates of all Universities. He would also be the proper person to advise Government regarding the subjects in which facilities for post-graduate teaching and research should be provided in Government Colleges.

#### MEDICAL COLLEGES.

(6.18) There are four Government Medical Colleges situated in the jurisdictions of four different Universities. They are: (i) Grant Medical College, Bombay, (ii) B. J. Medical College, Poona, (iii) B. J. Medical College, Ahmedabad, and (iv) Medical College, Baroda. Each of these Colleges has the same set-up and provides instruction for the First Degree. In addition, some provision has been made in some subjects for the post-graduate degrees, viz., M.D. or M.S. So far as the Medical Colleges at Poona, Ahmedabad and Baroda are concerned, we do not anticipate any difficulties for purposes of co-ordination of the work of Universities as they are the only colleges for the purpose in the corresponding University areas. The Surgeon General with the Government is a Member of the Senates of all Universities and is in a position to give advice to Government regarding provision of facilities for post-graduate teaching and research. In Bombay, however, there are other Medical Colleges and if post-intermediate or post-graduate co-ordination is attempted on any large scale, we expect the same series of problems as for Arts and Science Colleges. However, we do not expect introduction of any measure of co-ordination in the University of Bombay during the next few years, and, therefore, we are not anticipating any particular difficulties, administrative or otherwise. It is, however, possible that some measure of co-ordination may be attempted for the M.D. and M.S. Degrees and the teachers concerned may, to some extent, be affected. Even here, we do not expect any specific administrative difficulty during the next 3 or 4 years. In view of these facts, we do not consider it necessary to go into the details of the degree of co-operation that can exist between the Government College and the University.

(6.19) There are, however, a separate set of problems which may arise in any scheme of co-ordination. At the pre-clinical stage, Medical Colleges teach subjects like Anatomy, Physiology, Bio-Chemistry, Pharmacology, etc. Certain Universities have been planning the introduction of some of these subjects for their B.Sc. and M.Sc. Degrees even in the Science Faculty. In such cases, it always becomes possible for a student to offer one or two pure science subjects and one of the applied

science subjects. In such a case, the Medical College concerned will be required to provide facilities for the teaching of some of these subjects to the science students. When such problems arise, the University should write to the Principal of the College requiring him to provide certain specific facilities by way of lectures and laboratory work and should show readiness to make certain specific grants for the purpose. Wherever possible, such co-operation should be extended.

(6.20) One of the features of a Medical College is that it maintains two types of staffs: (a) staff doing teaching of the non-clinical subjects and (b) staff doing teaching of the clinical subjects. The latter category of teachers are generally the Honoraries who spend the greater part of their time in the actual practice of their profession. Such Honoraries may or may not directly interest themselves in research. Except when there are persons actually interested in research, the problem of providing special research facilities should not arise. It is rarely possible to employ full time personnel for continuous research in clinical subjects. However, we are of the opinion that those of the Honoraries who show interest in doing research, should be given full facilities, when the University concerned makes a recommendation to that effect to Government. They should also be permitted to take research students.

(6.21) In the first group of subjects, we have mentioned, *viz.*, the non-clinical subjects, the medical colleges generally employ full time teachers with high qualifications. These are the subjects in which research in the academic sense of the term can be undertaken. Proposals for instituting post-graduate degrees in any of the pre-clinical subjects or for providing facilities for research may emanate from time to time from one or more Universities. When such specific proposals are made, Government should examine in detail the scheme and provide necessary additional laboratory facilities and where necessary recruit additional staff.

(6.22) As a first step towards improvement in medical education, we consider it absolutely necessary for Government to insist on all the full time staff employed in medical colleges for non-clinical subjects, especially the Heads of different Departments, to undertake research work on their own. This should always be possible by slightly adding to the existing facilities. Such a step will lead to the raising of the general tone of work, especially the teaching of undergraduate students. It has also been contended that it would be most desirable to provide facilities for research in medicine and surgery. Such a step would require the appointment of whole time professors for medicine and for surgery. It may not be possible to get for such posts professors with adequate qualifications except when very high salaries are paid. Unless grants are made available from some Central organisation or some international organisation, it may become difficult for a State Government to undertake the creation and filling up of such posts. Under the circumstances, we would leave this suggestion with the remark that Government may keep this in view. A difficulty has, however, been raised about the salary of the Principal as compared to the salary of such a specialist professor. Specialists have to be paid according to specialist qualifications and we see no real objection to the salary of such a specialist being much higher than that of a Principal.

#### AGRICULTURAL COLLEGES.

(6.23) There are at present in the State of Bombay three Colleges of Agriculture. They are: the College of Agriculture, Poona, the College of Agriculture, Dharwar, and the semi-Government institution, *viz.*, the Institute of Agriculture, Anand. The Institutions at Anand and Dharwar are just affiliated Institutions. While

the College of Agriculture, Poona, is a Constituent College. In the College of Agriculture, Poona, the staff of the College have also duties of an executive type, under the Department of Agriculture. Thus the Professor of Botany in the College of Agriculture is also the ex-officio Economic Botanist to Government, the Professor of Chemistry is also the Agricultural Chemist to the Government of Bombay and so on. Such dual functions do not, however, exist for the staff of the other two Agricultural Institutions.

(6.24) Although the Institute of Agriculture at Anand is not a Government Institution, it is the only institution at which post-graduate teaching or research in Agriculture can be undertaken as far as the Gujarat University is concerned. It may be that, for higher Education and Research in certain specific branches, the Institute at Anand is perhaps the only suitable Institution. In such cases, provision for post-graduate teaching and research will have to be provided at Anand only. Similar statements can be made with reference to the College of Agriculture, Dharwar and the College of Agriculture at Poona. But these are Government Institutions and they are governed by the same set of rules and no special problems are likely to arise. If the scheme of agricultural research is undertaken at the Institute of Agriculture at Anand under the auspices of the Gujarat University and is accepted by Government, the Institute should receive a grant from the University and the State Government will have to admit this expenditure for payment of grant to the University.

(6.25) As regards the problem of demarcation of spheres of research and specialization in agricultural subjects with a view to avoiding duplication in the provision of research facilities, we consulted informally the Principal of the College of Agriculture, Poona. In his opinion, it is difficult to demarcate the spheres of research and specialization at Dharwar, Poona and Anand except in respect of very specialized branches of research which are briefly indicated below. Keeping in mind the existing research facilities at the three centres, it would be possible according to him to build up research facilities at each of the three places as follows :—

(1) *Poona*.—Plant Science :

- (a) Cytology,
  - (b) Plant Genetics,
  - (c) Plant Breeding,
  - (d) Plant Physiology.
- Plant Pathology and bacteriology,  
Agricultural Entomology,  
Soil Science,  
Agricultural Economics, and  
Agricultural Engineering.

(2) *Anand*.—Animal Husbandry :

- (a) Animal genetics,
  - (b) Animal breeding,
  - (c) Physiology of reproduction,
  - (d) Animal nutrition,
  - (e) Dairy technology,
  - (f) Dairy bacteriology.
- Plant Pathology—specialization in root-rots.  
Entomology—Research on locusts, termites, Katri and Boll-worms. Agronomic research.

(3) *Dharwar*.—Agronomic research suited to regional requirements; Forest Botany, Research on Karl soils, Entomology (domestication of wild honey bees).

(6.26) Certain subjects have been repeated in more than one place, but, in the opinion of the Principal of the College of Agriculture, Poona, as the soil, climatic and other conditions differ, as well as since certain crops differ for the regions, research on these cannot be confined to any particular region.

(6.27) We suggest that the existing facilities for research may be organised on some such basis as the one given above in consultation with the Director of Agriculture and avoidable duplication of advanced teaching and research facilities eliminated as far as possible. When research is undertaken in Government colleges on behalf of the University, it will be for the University to contribute a specified sum to Government in the Department of Agriculture for the facilities and services made available to it. Actually, this will become a financial adjustment between Government and the University.

(6.28) The College of Agriculture at Poona is a Constituent College of the University of Poona and post-intermediate teaching to the degree classes is conducted by and on behalf of the University. The teachers of the College have to be recognised as teachers of the University. Some of these teachers are well qualified and have also been recognized for doing post-graduate teaching or research. However, when post-graduate teaching and research is for and on behalf of the University, the Department of Agriculture will be required to make certain definite arrangements as indicated in para. (6.2) above. It is necessary for the Department of Agriculture to decide the subject or subjects in which post-graduate teaching and research facilities are to be provided, at the College of Agriculture, Poona. The Department may ask the University to propose appropriate schemes for post-graduate teaching and research and these may be considered by Government. This will avoid possible clashes. Similarly, if the Department wishes to provide post-graduate teaching and research facilities in any subject or subjects, such schemes should be sent to the University for opinion and after getting such opinion, the Department may or may not go ahead with the scheme or schemes concerned. Unless this procedure is adopted, there is always the possibility of administrative difficulties. To give an example, certain staff with a certain set of qualifications may be provided by a scheme worked out by the Department for post-graduate teaching and research. When the scheme materializes, it is open to the University, in accordance with their requirements, to insist on either additional staff or on a different set of qualifications.

(6.29) It has been represented to us that the dual functions of the staff of the College of Agriculture prevents them from doing justice to either set of their duties. Thus either the work as Professor of Agricultural Botany for the University or the work as Economic Botanist to Government would suffer. There is some truth in the statement. Generally there is a tendency to devote the greatest possible attention to the work of Government, as an Economic Botanist, as an Agricultural Economist or as an Agricultural Chemist to Government. When this happens, the teaching to the post-intermediate or post-graduate classes or the guiding of research is bound to suffer. This assumes serious magnitudes when the person concerned is required to go out of Station during term time. It has been suggested to us that these dual functions should not be attached to one post, and the staff meant for teaching in the College of Agriculture should be relieved of all their duties in the Department of Agriculture. We do not, however, share this view. Being

in touch with the practice of the profession adds to the professor's stature and improves the tone and quality not only of teaching, but applied research also. Under the circumstances, it appears to us that a compromise set up should be advised. Thus, as far as possible, the senior teachers who are doing degree and post-graduate teaching or research should not be called upon to go on tour during term time. They should be relieved of their routine duties in relation to the Department of Agriculture by being given suitable assistance. Thus where there is a Professor, an additional post of a Lecturer may be created for the Department especially when the Department is called upon to bear the burden of post-graduate teaching or research. The Professor concerned should be permitted to delegate his routine duties of the Department of Agriculture to this Lecturer. Similarly, where necessary, he should be permitted to ask this Lecturer to relieve him from his teaching duties for the lower classes. This will practically mean adding to the existing staff and addition of expenditure. We are of the opinion that it is desirable to take such a step and get both types of work done properly rather than allow the present state of affairs to continue. Research and development work in Agriculture are important not only from the point of view of Higher University Education, but also from a national point of view.

#### SECONDARY TEACHERS' TRAINING COLLEGES.

(6.30) The S. T. College at Bombay can constitute a nucleus for the organization of post-graduate teaching and research in the field of education. The requirements in this sphere, if any, of the University of Bombay may be communicated to Government and Government may arrange to meet such requirements in so far as it can do so. There should really then be no necessity for the University of Bombay to duplicate its teaching facilities by a separate University Department of Education.

(6.31) With a College in Bombay and a Department of Education and Psychology in Baroda, we consider that all the required needs for post-graduate teaching and research for the State of Bombay can be met by these two institutions. If necessary the available resources in these two institutions can be supplemented. Students from other Regional Universities can be given full scholarships and sent for post-graduate education or research to these two institutions. Looked at from this point of view, we are of the opinion that the S. T. College at Belgaum and the S. M. T. T. College at Kolhapur should be reduced to colleges doing teaching for the first degree only, *viz.*, B. T. It would then be possible to reorganise the staff of these two colleges on the lines indicated earlier for Arts and Science Colleges not doing post-graduate work. Thus the staff of these two colleges should consist only of Lecturers and Junior Lecturers and Tutors with a Reader as Principal.

#### GOVERNMENT ARTS AND SCIENCE COLLEGES OUTSIDE THE HEAD-QUARTERS OF A UNIVERSITY.

(6.32) There are colleges like the Rajaram College, Kolhapur, the M. N. College, Visnagar, etc., which are outside the Head quarters of a University. In such Colleges, the Universities concerned might arrange for some zonal scheme of post-graduate teaching or research and ask the Government College concerned to contribute its quota. It is our opinion that post-graduate education and research can flourish best in a place which has a large number of such institutions and where the necessary atmosphere for research exists or can easily be created. We, therefore, hold the view that colleges situated outside the University



Headquarters, should be confined entirely to teaching up to the first degree only. It should be open to any teacher in such colleges to do research on his own or to take research students within the limits of the facilities that exist. If he shows promise, it is always possible to give him a wider opportunity by transferring him at a later stage to a larger centre. Apart from this, no specific provision for post-graduate teaching should be made in such colleges. Such colleges can, therefore, be re-organised on this basis and the Universities concerned can be informed in unequivocal terms that they can expect no contribution whatsoever from such a Government College for any zonal teaching at the post-graduate level. This would solve the problem in very clear terms both to the Government and to the University and lead to economy in administration.

#### GENERAL.

(6.33) While summarising the views we have so far expressed, it may be desirable to crystallize some of them. Firstly, every University should classify its teachers on a strictly academic basis. Teachers will fall in the following categories :—(a) for teaching and guiding research, (b) for teaching post-graduate classes, (c) for teaching post-intermediate classes and (d) for teaching intermediate classes. This is a very rational classification and so long as a classification of employees of Government colleges corresponds exactly to the above, i.e. administrative difficulties will ever arise. We, therefore, suggest that in recruiting persons for the different classes of service, the duties as defined above should always be borne in mind. This will solve most of the administrative difficulties that may arise. Further in defining the duties of the person, the appropriate post-graduate, research, post-intermediate or intermediate teaching should be specifically taken into account, i.e., the person concerned should be recruited for specific duties. As regards promotions, it is ideal to advertise each post as it falls vacant and allow persons in the Department and outside to take their chance. The Public Service Commission is always there to give due weightage to service under Government among other factors which they take into account. In such a case, routine promotions will all be eliminated and every body will fit himself for promotion by his worth at the time of actual appointment to the higher post. It will also enable Government to get direct recruits where such are necessary. The routine rules of promotions by seniority or years of service, should all be suspended in so far as the teaching side of the Education Department is concerned. A person can and should be eligible for promotion only if he has acquitted himself well during service and is in a position to stand competition with any person inside or outside the Department. This is the one and only healthy way of changing the atmosphere of Government colleges.

(6.34) In certain colleges, viz., Medical Colleges, the Head of the Institution is a purely Administrative Officer. He functions in some cases as the Superintendent of the Hospital and Ex-officio Principal of the College. In such cases, he has no specific teaching duties except on a voluntary basis. This set-up is not consistent with the accepted academic standards in any college doing teaching and research. The Principal can be relieved of his administrative duties by appointing a Gazetted Officer such as a Registrar; but the Principal should be the Head of a teaching department in the college. This will enable the Principal to devote all his time to organisation of the work of his college, teaching and research. The decisions the Principal has to take, are academic decisions which can have vigour and life only in an independent academic atmosphere. As the Principal will then be Head of one of the Departments of the College, he will be in intimate contact with his students and his staff and can understand the problems as they occur. Further, the Principal

has to function in an Ex-officio capacity in the academic bodies of the different University authorities. In all such places, he is required to offer advice of a strictly academic nature. This is only possible, when he is actively engaged in teaching and research and shoulders the responsibilities of the Head of a Department. We, therefore, strongly recommend to Government, in their different Departments, the desirability of maintaining the academic stature of a Principal by keeping him also as the Head of one of the teaching Departments with adequate lecturing at post-intermediate and post-graduate stages and where possible providing for his active participation in research. It may be recalled that we have already made similar suggestions for Government Arts and Science Colleges. We have said that the Senior Reader or Professor should be the Principal and he should be assisted by an Administrative Officer. The recommendations made here are consistent with these and aim at the same objective.

(6·35) We have not indicated in the course of our discussion the specific subjects for which post-graduate facilities should be provided in the different Government colleges and the specific number of teachers whom Government may make available for post-graduate lectures or guiding research in the different Government colleges to the University. These are questions of detail and we shall go into these questions to the extent possible in the chapters corresponding to the different Universities.

(6·36) While we have indicated the general lines on which certain changes have got to be made by Government for making better use of Government colleges for higher education and increasing their utility to the Universities, we have refrained from elaborating once again several principles which we have enunciated, in the Chapter on Organisation of University Education, pertaining to teachers, tests for maintaining efficiency of teachers, importance of research work, tutorials, etc. We would like Government to give serious consideration and accept as many of the recommendations as are contained in that Chapter. We are making this specific request on one primary consideration. It has been represented to us that a Government College is now an anachronism and should not exist. In fact, some representatives of the Gujarat and Karnatak Universities desire that Government Colleges should be handed over to the Universities. A similar request was made by the University of Bombay for the Institute of Science, and this was again mentioned to us. We, however, feel that in the present formative stages of the Universities, it is absolutely necessary for Government to run the existing institutions on its own for the purpose of implementing all good and desirable changes in the sphere of higher education. Government colleges should be organized to serve as models for higher education and research. In fact, Government should be in a position to point out to the Universities that what they desire to achieve has actually been achieved in one or more of Government Colleges. It would also prove that all suggestions made to a University are implemented and demonstrated as practicable in a Government college.

## PART II.

## CHAPTER. VII.

## University of Poona.

## INTRODUCTION.

(7.1) The University of Poona was established by Bombay Act No. XX of 1948 and started functioning on 9th February, 1949. Within the Poona area the teaching for all classes beyond the intermediate stage is conducted by and on behalf of the University by the teachers—appointed or recognised by the University. In the whole University area, post-graduate teaching and research is the direct responsibility of the University.

(7.2) The University of Poona is a regional University, whose jurisdiction extends over eleven districts in the State of Bombay. Most of these districts are inhabited by persons whose mother-tongue is Marathi. There are regional minorities speaking Kannada and Gujarati and minorities speaking other languages in large centres like Poona. There are affiliated colleges teaching up to the degree stage spread all over the area. In some of these institutions some measure of post-graduate work was also undertaken when this area was under the jurisdiction of the University of Bombay. There are also institutions engaged in carrying out research work. Poona, however, happens to be the main centre for all such activities and traditions have grown for the pursuit of higher learning and research in Poona city to a degree comparable to those anywhere else in India. But the general concentration of effort has been principally directed towards learning and research in oriental languages and history. The regional language, Marathi, has also received a good deal of attention. Development of facilities for research in the field of science has been comparatively slow.

(7.3) The establishment of Government Colleges for Agricultural and Engineering in the City of Poona has provided good facilities for under-graduate trainees in these two subjects. It is only recently that a college has been established by Government for giving instruction in courses of studies leading to the degree of M.B.B.S. in the Faculty of Medicine. There is a Law College giving instruction for the LL.B. degree in Poona. A similar one exists at Kolhapur. Facilities for study at the post-intermediate and post-graduate level in education exist at the Tilak College of Education in Poona and S. M. T. T. College, Kolhapur.

## RECOGNISED INSTITUTIONS.

(7.4) Long before the University of Poona came into existence, several institutions had been founded and were doing good work within the Poona area. The Deccan College Post-graduate and Research Institute was established by Government in the year 1937. The general organizational set up of the institution and the terms and conditions of service of the staff and their qualifications have all been based on the assumption that this institution caters for the needs of post-graduate teaching and research. There are two principal departments in this institution, namely, the department of linguistics and the department of history and archaeology. In the Department of Linguistics, adequate provision has been made for the study of Linguistics, Philology and Vedic Sanskrit. In the Department of History, there is provision for Archaeology, Maratha History and Sociology. This institution is financed almost entirely by the

Government of Bombay. In addition, in recent years, the institution has been receiving grants from the Central Government and International Foundations like the Rockefeller Foundation. This flow of funds to the institute is also an indication of the recognition it has earned for itself by its steady output of work. It is our considered opinion that for the subjects for which this institute caters, the University of Poona should not have any department of its own. If facilities are to be supplemented, a proper approach would be for the University to add to the existing facilities in this Institute by the creation of additional posts or by the development of library and other facilities.

(7.5) Another institution which has been doing useful work is the Gokhale Institute of Politics and Economics. This institution was enrolling students for post-graduate degrees in Economics when Poona was within the jurisdiction of the University of Bombay. The Institute has steadily continued to do valuable work in the field of Applied Economics and has been recently expanded by the addition of a section in Applied Statistics. The necessary equipment for the statistical laboratory has also been purchased and installed. The Institute has a valuable library and is getting reports and journals from various parts of the World. Establishing any departments, which duplicate in any way the work of this institution, would be waste of money. We, therefore, feel that all activities of the University of Poona in the field of post-graduate teaching and research in Economics, Politics and Applied Statistics should be concentrated in this institution. If necessary, the available facilities in this institution should be supplemented by the University by the addition of staff, library, or buildings. Such a step, in our opinion, would lead to the best utilization of the available resources.

(7.6) The third institution which has been engaged in useful work is the Bhandarkar Oriental Research Institute. The contribution that this institution has made during the last two decades is well-known. The institution has a very good collection of manuscripts which can be most useful for research in Sanskrit and allied subjects. The Institute is already receiving a grant from the Government of Bombay. It is a recognised institution of the University of Poona. Some of the staff of this institution do post-graduate teaching and guide some research students of the University of Poona. Sanskrit is the basis of our culture and encouragement of Sanskrit studies does not require any elaboration by us. Development of the existing facilities in this institution, including additions to staff in a manner useful to the University, would be a valuable way of utilizing the facilities provided by this institution.

(7.7) It has not been possible for us to go into the details of the administrative set up of these institutions and the extent to which the linking of the work of these institutions with the University should be possible, but we understood from personal discussions with the Heads of these institutions that there will not be any difficulties for any of these institutions in the way of extending their full co-operation to the University for post-graduate teaching and research.

(7.8) The Maharashtra Association for the Cultivation of Science is another recognised institution. It is temporarily housed in some premises placed at its disposal by the Law College in Poona. It is largely staffed by men of Science, who during their retirement in Poona have decided to devote all their time and energy to the advancement of Science. Most of these men work in an honorary capacity. The fields of interest of this institution are the pure and applied sides

of Biological Science and the institution has obtained some grants for research work through certain Central Government Organisations like the Indian Council of Agricultural Research.

(7.9) Another institution known as "The Bharat Itihas Samshodhak Mandal" in Poona is doing some work by way of collecting data of Maratha History. The University of Poona is giving grants to this institution to carry out its work.

#### ORGANIZATION OF TEACHING IN THE UNIVERSITY OF POONA.

(7.10) The University of Poona has taken over instruction and teaching beyond the intermediate stage in the Poona area and all instruction and teaching at the post-graduate stage in the whole University area from June, 1949. The University controls all such instruction through its Board of University teaching. The University has laid down specific qualifications for the different classes of teachers and no person is ordinarily allowed to teach on behalf of the University unless he is recognised for the purpose.

(7.11) For post-intermediate classes, the University generally provides about 3 lectures for a paper of 100 marks and at the post-graduate level about one lecture a week for a paper of 100 marks. In addition, tutorials have been arranged for both post-intermediate and post-graduate students on the basis of about 3 tutorials per term per paper. Post-intermediate classes in the Faculties of Arts, Mental, Moral and Social Sciences and the classes for the Law Preliminary examination are all arranged at the S. P. College. On the science side, the teaching and laboratory work is distributed over the four existing Science Colleges. The University authorities have made the necessary arrangements for the transport of students and the staff. Post-graduate lectures in Arts and Social Sciences Faculties are arranged on the University Campus at Ganeshkhind, where also post-graduate teaching and laboratory work in the Faculty of Science is done.

(7.12) In Agriculture, Engineering, Medicine, Education, Law and Commerce, instruction both at the intermediate and post-graduate level (if any) is given in the corresponding constituent colleges. There is some measure of co-ordination inasmuch as the University Lecturer in Economics delivers lectures to students of the Engineering College and the teachers in the Departments of Commerce Economics, and Agricultural Economics co-operate in arranging for post-graduate instruction in the subject of Economics in these different Faculties.

(7.13) All under-graduates are enrolled at the constituent colleges but the post-intermediate time-tables for the Arts and Social Sciences Faculties are prepared by the University itself. It seems that the time-tables for subjects in which there are single institutions are not arranged by the University yet.

#### RESEARCH.

(7.14) The University has recognised teachers for all post-graduate degrees by research on the basis of qualifications laid down by regulations. Such teachers are permitted to enroll not more than a certain number of students. Students desiring to enroll for research are required to have certain minimum academic qualifications. This is a welcome feature in the University and provides some form of screening. The Board of University teaching calls for periodic reports about the progress of such research students. It appears to us that there is no special provision for advanced lectures for the benefit of research students or for systematic and regular organization of seminars, where useful discussions among groups of persons interested in the same fields of investigation could be held.

(7.15) We were given to understand that students could be enrolled for research in the University and could work outside the University area and at places, where the guide was not available. Such research students are, for all practical purposes, external students and the students admitted in this manner cannot possibly get the opportunities of acquiring the necessary mental discipline, that the University provides. It is to be hoped that this practice, if current, will be discontinued at the earliest possible opportunity.

(7.16) Research students are encouraged in their work by being given scholarships or fellowships and we were given to understand that efforts will be made to award a larger number of such scholarships and fellowships.

#### POST-GRADUATE TEACHING OUTSIDE THE POONA AREA.

(7.17) There is a large number of colleges within the Poona University area at which post-graduate teaching and research have been permitted by the University. Thus teaching for the M.A. degree is available at (1) the Willingdon College Sangli, (2) Rajaram College, Kolhapur, (3) D. A. V. College, Sholapur, (4) Ahmednagar College, Ahmednagar, (5) M. J. College, Jalgaon and (6) H. P. T. College Nasik. Permission has also been given for carrying on research and enrolling research students in subjects like Chemistry and Botany at Sangli, Kolhapur and Amalner and for History at Sholapur. We doubt whether the same standard of discipline and rigour, that is expected in Poona, is being enforced at the mofussil colleges. We are also not sure from the data placed at our disposal whether any regular inspection of the library and other facilities for post-graduate teaching and research is being carried out. There are quite a number of University teachers, who do not have adequate work according to the standards we have indicated, in the University itself. We see no reason why they should not be deputed periodically to these outside centres to deliver courses of lectures in their own subjects.

(7.18) Generally speaking, we are of the opinion that post-graduate teaching and research at centres outside Poona should be organized on the lines we have already indicated in the first part of our report (paragraph 3.53).

#### DEPARTMENTS OF THE UNIVERSITY.

(7.19) The University of Poona has about 73 departments for providing post-intermediate and post-graduate instruction. Most of these departments are manned by teachers contributed by the different constituent colleges. In most of them one of the senior persons is appointed as Professor-in-charge of the department. In order to supplement the existing facilities in the form of the quota of existing contributed teachers and in subjects in which there is, in the opinion of the University, real deficiency the University has created professorships or readerships in 10 departments, viz., Mathematics and Statistics, Physics, Chemistry, Botany, Zoology, Experimental Psychology, Politics, Sanskrit, Marathi and Geography. In addition to the posts of Professors or Readers, the University has created Lecturerships in some of the departments, where there was shortage of contributed teachers. A certain number of posts of Demonstrators have also been created in the Science Departments. Apart from the above posts, all other teaching work is done entirely by the contributed teachers. A contributed teacher is required to have certain minimum qualifications and experience for guiding research. At present the minimum qualifications laid down by the University particularly for research are rather low and need to be stiffened in the light of our

remarks in the 1st Part of our report (paragraph 3.19) and require to be strictly enforced. Further, in any scheme of co-ordinated work, persons doing the same class or type of work should be governed by the same set of rules, at any rate, on the academic side. A post-graduate teacher drawn from the pool of contributed teachers and guiding research, is in some cases called upon to do more work than a University Professor or Reader. This is an anomaly, which should be set right.

#### REQUIREMENTS OF THE UNIVERSITY FOR TEACHING.

(7.20) The organisation of post-intermediate and post-graduate teaching in the University for the Poona area has already been described earlier. It has to be of a fluid type for the requisite changes cannot always be anticipated. The University stands committed to giving instruction in certain subjects at certain stages depending on the availability of contributed teachers. If any of the constituent colleges are not in a position to supply the requisite quota of qualified teachers the responsibility for providing staff is automatically thrown on the University. The University has now been in existence for over five years and we should expect that the authorities would decide now regarding the number of contributed teachers they would expect from each of the constituent colleges from year to year. In effect we visualise that the authorities of the University would ask the constituent colleges to maintain and contribute a specified number of qualified teachers for each subject and make it a condition for the continuance of their affiliation. The University authorities will have to give to those institutions a lump sum grant, calculated on the basis of the number of teachers that the college concerned is required to contribute. Unless some such step is taken in the very near future, we feel that there will not be any stability for the organization of post-intermediate and post-graduate teaching in the Poona area. This question has also been stressed by the University authorities in a letter that they addressed to us. Another question that has also to be considered is the extent to which the constituent colleges should bear the burden of providing library or laboratory facilities and the contribution that the University authorities should make for the purpose. As matters stand at present the fees received from the students are pooled together and redistributed on a certain basis. This scheme requires to be carefully examined and a definite arrangement in the form of an agreement should be arrived at between the constituent units and the authorities of the University. We visualize a more effective inspection of the laboratories of the constituent units by the Heads of the University Departments with a view to ascertaining whether the minimum standards of practical training are maintained. A necessary consequence of these steps will be to place some additional financial liability on the University. In the next few years we anticipate no difficulties in continuing the present arrangement. At present, the payment to constituent colleges and recognised institutions is generally covered by the corresponding fee receipts. We are, therefore, making only a minor provision for a possible financial commitment in this direction in respect of constituent colleges. The question of developing the library and laboratory facilities in the constituent colleges by giving them non-recurring grants required examination. We feel that there is a just case for giving some non-recurring grant for improving the existing facilities or for replacing equipment which is either obsolete or worn out. The constituent college itself should make out a case on the basis of the stipulation of the University authorities and submit it to the University. The University can then make reasonable grants for the purpose. These grants will be generally of a non-recurring character and the Universities will have to appraise the State Government of the position in this respect and obtain its approval if the University expects Government

assistance for this purpose. As regards affiliated colleges outside Poona where post-graduate teaching or research are permitted by the University, we have already remarked in paragraph (3.53) that the University and the College should share the deficit equally.

(7.21) The University has at present Professorships in the following Departments :—

(1) Chemistry ; (2) Mathematics and Statistics ; (3) Marathi ; (4) Sanskrit and Prakrit ; (5) Botany.

With the provision made at the Deccan College for Vedic Sanskrit and having regard to the large number of available contributed teachers in Sanskrit we fail to understand the need for the post of Professor of Sanskrit, in the University. In fact from the details supplied by the University, it appears that there is not adequate work for even the contributed teachers. Since, however, the present incumbent has been made permanent in the post of Professor of Sanskrit, we suggest that he should work in the Deccan College Institute. With the large volume of research work being done in linguistics including Sanskrit, in the Deccan College, we feel that the necessary atmosphere for organizing the work of the Sanskrit Department exists there, in a much better form than at Ganeshkhind. Adding one such experienced person to the general set up of the Deccan College Institute would be adding facilities not only for the Professor himself but also for the students and the Institute itself. We should like to emphasise that creating additional facilities on the University campus by way of library, collection of manuscripts, etc. would involve waste of useful funds and be a clear case of provision of overlapping facilities in the same town. As far the teaching of the allied subjects like Ardhamagadhi and Pali, we are of the opinion that it should not be undertaken unless surplus contributed staff is available for the purpose. The University should not on its own create individual posts in those subjects.

(7.22) Judged by the standards described in paragraph (3.32), the Professor of Marathi does not have adequate work. However, Marathi is the language of the region and there is justification for the post. The present Professor is himself interested in Linguistics. Hence we feel that it would be more appropriate to attach the post of Professor of Marathi to the Deccan College Post-Graduate and Research Institute. Such a step should result in avoiding duplication of library and similar facilities. Moreover, the Deccan College has adequate space, and the pressure on space in the University area would be relieved. We would also recommend the acceptance of the University's request to create a post of Reader in Marathi. Such a step should, however, be taken after a couple of years, when the Department has grown and the need for an additional member of the staff is felt due to the retirement of some of the available contributed teachers.

(7.23) The existing Professorship of Chemistry is fully justified. There are a large number of students for post-graduate degrees. The University has received a handsome donation in the form of the Ranade Institute of Industry and Economics and also a non-recurring grant from the Government of India. The Department of Chemistry has already started doing research work. The need for creating a post of a Reader in the Department is justified and we recommend that permission to create such a post from the year 1956-57 be given since the new Chemistry building with equipment is not likely to be ready before the end of 1955.

(7.24) The Department of Mathematics and Statistics has a Professor of Statistics and two Lecturerships. This department is trying to teach both pure and applied Mathematics for the Master's degree and also provides a full course in



Statistics. We are of the opinion that such a full provision is unnecessary for all the branches, since Statistics is the main subject of instruction for which the University Professor has been appointed. The full course in Statistics may, therefore, be taught and in addition to it provision may be made for instruction in a full course in pure Mathematics. A full course of applied Mathematics for the M.A. and M.Sc. may be discontinued and such of the students as wish to offer this course may be permitted to migrate to other Universities. The deserving students may be awarded scholarships or stipends by the University. This has already been generally suggested elsewhere. The load of post-graduate lectures taken by contributed teachers is about 19 per week, and the number of contributed teachers is not likely to remain at its present level. It is, therefore, desirable on the one hand to stop teaching Applied Mathematics (Group B) for M.A. and M.Sc., and on the other hand to strengthen the University staff by the appointment of a Reader in Pure Mathematics from 1955-56. The post of a Reader is, therefore, included in our recommendations given below. The subject of Botany has already been listed by us in the first part as a basic subject in which instruction should be provided. We are, therefore, of the view that the existing post of the Professor of Botany is fully justified. In addition, we are allowing an additional post of University Lecturer in Botany from 1955-56, as there is only one contributed teacher in the subject for post-graduate work at present.

(7.25) The University has created Readerships in the following subjects :—

(1) Physics ; (2) Zoology ; (3) Geography ; (4) Politics and (5) Experimental Psychology.

The post of Reader in Experimental Psychology has been in existence for some time and the only way to utilise the Reader's services is to attach him to the Tilak College of Education and ask him to confine himself to research in Educational Psychology. Apart from such an approach to the question we cannot see our way fully to justify the Department. As a part of the Department of Education in the University it can play a very useful role.

(7.26) Geography is at present being taught at different levels and there is a full load of teaching work. We realise that research work cannot start in this subject for some years to come, as post-graduate courses in Geography in the University have not as yet taken shape.

(7.27) We have examined the need for Readers in Physics and Zoology in the light of the total work load and the number of available contributed teachers and are satisfied that these posts are necessary.

(7.28) The Director, Gokhale Institute of Politics and Economics, has sent us a note regarding the arrangements for teaching of Economics in the University of Poona. In this note, the Director has stressed the need for a qualified teacher in Agricultural Economics and some more lecturers to provide relief to senior teachers from post-intermediate work, so that they can devote themselves more fully to post-graduate work. We have examined the needs of the University and we are of opinion that they can be met by the appointment of a lecturer in Agricultural Economics and one lecturer in Economics. It is difficult to justify the need for the creation of the post of Reader in Politics. There is no immediate necessity for a Department of Politics in the University of Poona when a well organised Department of Politics exists in the Bombay University. For the teaching of Politics as one of the subsidiary subjects at the B.A. and M.A. levels, the strength of the available contributed staff appears to be adequate and it should be possible when

necessary to create posts of Lecturers, as has been done for the subject of Economics. In view of these considerations we cannot recommend immediate expansion of the Politics Department. An appropriate step for making full use of the present Reader in Politics would be to attach the post to the Gokhale Institute of Politics and Economics, so that that Institution may serve as a nucleus for a School of Economics and Politics. This will also avoid duplication of facilities by way of library, journals, etc. We, therefore, recommend that the Readership in Politics be attached to the Gokhale Institute of Politics and Economics. In the light of the above remarks, we give on pages 70-71 in a tabular form the *total* number of posts which should be held admissible for the University during the period 1954-59. These recommendations are made after taking into consideration the normal work load of a post-graduate teacher as worked out in paragraph (3.36). We have not examined the question of Demonstrators for the different Departments of the University. Indeed, we believe that a large measure of the practical work at the post-graduate level should be done under the direction of Professors, Readers or Lecturers. A Demonstrator may be attached to each of the Departments on the Science side. In Chemistry, where one has to deal with large numbers, two such Demonstrators may be necessary. This recommendation has been made keeping in view the fact that the number of students, who are to be admitted to post-graduate degrees, will be reduced by effective screening. We do not believe that admitting more than ten students for any of the Science Departments, except Chemistry, is desirable.

*Total staff (including the existing staff) held admissible by the Universities Co-ordination Committee.*

Posts	1954-55	1955-56	1956-57	1957-58	1958-59	Remarks.
<i>Sanskrit.</i>						
1. Professor	...	1	1	1	1	1
2. Reader	...	.....	.....	.....	.....	.....
3. Lecturer	...	.....	.....	.....	.....	.....
<i>Marathi.</i>						
1. Professor	...	1	1	1	1	1
2. Reader	...	.....	.....	1	1	1
3. Lecturer	...	.....	.....	.....	.....	.....
<i>Chemistry.</i>						
1. Professor	...	1	1	1	1	1
2. Reader	...	.....	.....	1	1	1
3. Lecturer	...	3	3	3	3	3
<i>Mathematics and Statistics.</i>						
1. Professor	...	1	1	1	1	1
2. Reader in Pure Maths.	...	.....	1	1	1	1
3. Lecturer	...	3	3	3	3	3
<i>Physics.</i>						
1. Professor	...	.....	.....	.....	.....	.....
2. Reader	...	1	1	1	1	1
3. Lecturer	...	1	2	2	2	2

Posts	1954-55	1955-56	1956-57	1957-58	1958-59	Remarks.
<i>Economics.</i>						
1. Reader	.....	.....	.....	.....	.....	
2. Lecturer	1	2	2	2	2	
<i>Zoology.</i>						
1. Professor	.....	.....	.....	.....	.....	
2. Reader	1	1	1	1	1	
3. Lecturer	2	2	2	2	2	
<i>Geography.</i>						
1. Professor	.....	.....	.....	.....	.....	
2. Reader	1	1	1	1	1	
3. Lecturer	1	2	2	2	2	
<i>Experimental Psychology.</i>						
1. Professor	.....	.....	.....	.....	.....	
2. Reader	1	1	1	1	1	
3. Lecturer.	.....	.....	.....	.....	.....	
<i>Politics.</i>						
1. Professor	.....	.....	.....	.....	.....	
2. Reader	1	1	1	1	1	
3. Lecturer	.....	.....	.....	.....	.....	
<i>Botany.</i>						
1. Professor	1	1	1	1	1	
2. Reader	.....	.....	.....	.....	.....	
3. Lecturer	1	2	2	2	2	

(7.29) In each of the Science Departments, we feel that there must be some ancilliary staff. These requirements are being generally provided for in our calculations for grant on the basis of two Laboratory Assistants and two peons for each Department.

(7.30) We consider that typing and other incidental clerical work should be done by the staff provided in the Registrar's office or in the recognised Institute.

#### NON-RECURRING GRANT.

(7.31) The University has stressed the need for some provision for major repairs to the University buildings, since the structure of the University Buildings is such that it will require rather costly major repairs. The correct procedure for the University would be to estimate in consultation with the Public Works Department the cost of such repairs and approach the State Government in good time for a non-recurring grant.

(7.32) The University has sent to us a copy of its five year plan submitted to the Government of India. This plan includes comprehensive recurring and non-recurring requirements of the University. We cannot, however, take all these requirements into consideration as they involve very heavy financial commitments,

but we have carefully scrutinised the plan and deal below with what we regard as urgent needs of the University. In case, Government are able to provide non-recurring grants recommended below, it will be necessary to inform the Government of India about these grants, so that there may be no duplication in the award of these grants.

(7.33) The University is in urgent need of a hostel on the University campus and has included in its requirements during the next five years, 5 blocks for 40 students each, at the rate of Rs. 80,000 per block. A non-recurring grant for this purpose is a justifiable need. We consider that a provision for 80 students is necessary during the next five years. This would cost Rs. 1.6 lacs.

(7.34) In order to provide the necessary facilities by way of accommodation for the existing Science Departments in the University campus, we recommend that a separate building having an area of about five to six thousand square feet be built for the Department of Botany. The existing space provided for the Department of Botany can then be utilised by other Science Departments. This new building will cost about Rs. 1 lac, including the necessary fittings.

(7.35) We understand that a new building is being put up on the University campus for the Department of Chemistry and expenditure for the same is to be met from the sale of securities and sale proceeds of property made over to the University by the Ranade Institute of Industry and Economics.

(7.36) The Director of the Gokhale Institute of Politics and Economics, Poona, has stressed the need for extension of Library and Reading Room facilities and provision of space for research students in the Institute and this is supported by the University. This is estimated to cost 1 lac of rupees. We are satisfied that this is a genuine need of the Institute and, therefore, recommend that a non-recurring grant of Rs. 1 lac may be given to Poona University for providing the extension of the library at the Gokhale Institute.

(7.37) The University has asked for a non-recurring grant of Rs. 1 lac to construct a few fire-proof rooms for storing rare manuscripts and journals at the Bhandarkar Oriental Research Institute, Poona. We feel that although the need for such fire-proof rooms is genuine, the estimated cost is excessive. We, therefore, recommend that a non-recurring grant of Rs. 40,000 for 4 or 5 fire-proof rooms at the Bhandarkar Oriental Research Institute may be given to the University. We are not inclined to support other demands of the University of Poona, for non-recurring grants during the next five years.

#### ASSESSMENT OF RECURRING GRANT-IN-AID.

(7.38) As stated by us in the earlier part of our report, this question has to be considered under two heads. The first is administration, including establishment for the office of the University and the University Library, Examinations, Maintenance of the University Estate, Insurance, Printing, Stationery and Postage, Contribution to the University Provident Fund or Pension, expenditure on Travelling Allowances, Elections and Convocations, the University Press, Taxes and Law charges, Physical Culture, Publication grants, Medical Inspection of students, Furniture, and equipment and all miscellaneous items. The sources of income on account of the abovementioned items are mainly Examination fees and other fees, such as Eligibility fees, Transference Certificate fees, Registration fees, F. Y. Certificate fees, etc. The income from the University Press,

if any, is also included under this head. On a scrutiny of the budget estimates of the Poona University for the year 1953-54, it is found that the budgeted figures reveal a deficit of about Rs. 1.6 lacs under Administration. It seems to us that there is a good deal of room for economy in expenditure on examinations and particularly on practical examinations. It is suggested, therefore, that by carefully scrutinising the expenditure at present incurred on examinations and practicals at different stages, the University should lower the expenditure under this head by at least Rs. 30,000. The University should also examine the possible reduction of expenditure on travelling and other allowances, as in many cases, these are in excess of those admissible under the rules of the State Government. We propose to provide the amount required by the University library for books and periodicals separately under the second head, viz. Instruction and Research. When all these factors are taken into account, we feel that a grant of Rs. 1.5 lacs under Administration should be quite adequate for the year 1954-55. It may be remarked that this grant of Rs. 1.5 lacs is, in fact, generous as it is based on the estimated figures. It has been represented to us that the University will have to meet additional expenditure for major repairs to its buildings and also for current repairs and insurance. As far as the expenditure on current repairs and insurance is concerned, it is included in the above figure of Rs. 1.5 lacs. As for major repairs to the University buildings, it is necessary as has been stated earlier that the University should prepare the necessary plans and estimates in consultation with the Public Works Department and submit them to Government at least one year in advance and request for a non-recurring grant. Such a proposal would then be considered by Government on its merits.

(7.39) The University budget shows an estimated expenditure of about Rs. 20 lacs under teaching and research. This includes an estimated expenditure of Rs. 4.85 lacs on buildings, which is of a non-recurring character. In addition to this, there are other non-recurring items including those financed from funds provided by the Government of India, which amount to about Rs. 2.35 lacs. After deducting the total of these items amounting to about Rs. 7.2 lacs (Rs. 4.85 lacs plus Rs. 2.35 lacs), the expenditure on teaching and research is estimated at Rs. 12.8 lacs. As against this, the income from fees, including miscellaneous income, is estimated in the budget at about Rs. 9.2 lacs, showing an estimated deficit of Rs. 3.6 lacs. To this figure, we add Rs. 40,000 to be provided for library books and journals. We feel that provision of Rs. 1,000 for each of the 10 University Departments and Rs. 30,000 for the general needs of the University Library should be quite adequate for the purchase of books and journals. We are, therefore, of opinion that under the head, Instruction and Research, a grant of Rs. 4 lacs would be quite adequate to meet the needs of the University during 1954-55. The total grant under both the above heads, admissible to the Poona University during 1954-55, would be Rs. 5.5 lacs (Rs. 1.5 lacs plus Rs. 4 lacs). The expenditure under Administration is likely to increase every year by a small amount due to increments of the staff, increase in contingency and other expenditure. We feel that an annual increase of about Rs. 10,000 (at the rate of about 6 per cent.) will cover the growth of expenditure on this account. Thus the grant under Administration in 1958-59 will amount to Rs. 1.9 lacs, and we recommend that the grant under this head should be stabilised at that figure and should not be increased further for some time. The University should be given to understand that the grant under this head shall be utilised only for the items listed above under Administration and should not be diverted for any other purpose. Similarly, the grant under Instruction and Research will also increase during the next 5 years, on account of the extra posts of Readers

and Lecturers recommended by us, as shown in the table earlier. Taking expenditure on this account into consideration, it will be necessary to increase the grant under this head by about Rs. 30,000 during 1955-56 and Rs. 20,000 during the three subsequent years; so that the grant admissible under this head during 1958-59 will be Rs. 4.9 lacs. In making an allowance for increase, we have not only taken into account the new posts of Readers and Lecturers recommended by us, but also the increments on account of the existing posts as well as the possibility of appointment of one or two additional Lecturers by the University during any particular year, when there is shortage of contributed teachers in one or two subjects. We may add specifically that no allowance has been made for depreciation for the University buildings in view of our remarks in paragraph (4.4) earlier. The Government grant under this head is to be used for the purpose of Instruction and Research only and is not to be diverted to Administration or for capital expenditure. The University should also be requested to maintain accounts under these two separate heads and not mix up current and capital accounts. We give below in a tabular form the recommended recurring and non-recurring grants to the University during the next five years.

	Recurring grants.			Non-recurring grants recommended during the next five years.
	Administra- tion.	Teaching and Research.	Total.	
	In lacs.	In lacs.	In lacs.	In lacs.
1954-55	1.5	4.0	5.5	1.6 University Hostel.
1955-56	1.6	4.3	5.9	1.0 Building grant for the Botany Department.
1956-57	1.7	4.5	6.2	
1957-58	1.8	4.7	6.5	1.0 Extension to Library of the Gokhale Institute.
1958-59	1.9	4.9	6.8	0.4 Fire proof rooms for the B. O. R. I.
				4.0 Total.

(7.40) Government had issued Circular No. USG.1152-U, dated the 18th September 1952, to the Universities intimating that unless the previous concurrence of Government was obtained before September of any year, Government would not take into account any new developments undertaken by the Universities, involving increased expenditure, for purposes of recurring and non-recurring grants. The Universities were, therefore, requested to supply information regarding the number of posts created after 18th September 1952, the number of posts so created and filled in with dates, and the number of posts created before the 18th September 1952, but filled in after that date. The Registrars were also asked to state whether the previous concurrence of Government was obtained and if so to quote the number and date of the Government letter. The Registrar of the Poona University has sent the reply by his No. ACT.9-A-2/10863, dated 14/15th June 1954.

The University has, apparently, not taken Government's approval for the posts filled in. The total expenditure on these posts amounts to Rs. 42,786-9-0. A copy of the statement received from the University is given as Appendix (a) at the end of this Chapter.

#### ACKNOWLEDGEMENT.

(7.41) It gives us great pleasure to express our thanks to Dr. M. R. Jayakar, the Vice-Chancellor of the University, Professor D. R. Gadgil, Professor R. D. Karmarkar, Shri K. N. Shirole, Shri V. D. Ghate, Professor S. G. Hulyalkar, Professor N. G. Suru and Professor B. V. Bhide for their valuable co-operation and for the useful discussion we had with them. We also record our thanks to Shri G. P. Bhosale, Registrar, University of Poona, for his valuable co-operation during our visit to the University of Poona.

We visited the Bhandarkar Oriental Research Institute, the Deccan College Post-graduate and Research Institute, the Maharashtra Association for the Cultivation of Science and the Gokhale Institute of Politics and Economics. We are grateful to Professor R. D. Karmarkar, Professor D. R. Gadgil, Dr. S. M. Katre and Dr. S. P. Agharkar for the valuable assistance they gave us during our visit to these Institutions.

## APPENDIX (a) OF CHAPTER VII.

UNIVERSITY OF POONA.

Statement of Expenditure up to 31st March 1954 on account of Pay and Allowances of the Staff appointed after 18th September 1952 to Posts created before and after 18th September 1952.

Post.	Date of Appointment.	Salary paid (inclusive of pay, dearness allowance, house rent allowance).
		Rs. a. p.
(A) Posts created before 18th September 1952.		
<i>Botany Department.</i>		
1. One Laboratory and General Assistant ...	13th October 1952	1,555 2 0
2. One Herbarium Keeper—	2nd January 1953	1,344 10 0
<i>Mathematics Department.</i>		
1. One General Assistant	16th November 1953	315 0 0
	Total	3,214 12 0
(B) Posts created after 18th September 1952.		
<i>Chemistry Department.</i>		
1. One Lecturer in Organic Chemistry ...	26th June 1953	2,531 11 0
2. Demonstrators—Three—		
1 ...	10th June 1953	4,843 4 0
2 ...	7th July 1953	
3 ...	10th July 1953	
3. Laboratory Helper—One ...	18th July 1953	521 10 0
4. Hamal—One ...	14th July 1953	530 10 0
<i>Zoology Department.</i>		
1. Lecturer in Zoology—One ...	15th June 1953	2,585 5 0
2. Demonstrators—Two—		
1 ...	2nd February 1953	4,988 2 0
2 ...	11th February 1953	
3. Store-keeper-cum-Museum Assistant-cum- Technician—One.	10th July 1953	655 5 0
4. Laboratory Attendant—One ...	6th July 1953	509 8 0
5. Field Collector—One ...	1st April 1953	715 0 0
<i>Physics Department.</i>		
1. Lecturer in Physics—One ...	20th June 1953	2,761 0 0
2. Demonstrators—Three—		
1 ...	25th June 1953	4,777 7 0
2 ...	22nd June 1953	
3 ...	20th July 1953	
3. Peon—One ...	13th July 1953	494 13 0
4. Workshop Assistant—One ...	11th July 1953	499 0 0



APPENDIX (a) OF CHAPTER VII—*contd.*

Post.	Date of Appointment.	Salary paid (inclusive of pay, dearness allowance, house rent allowance).		
		Rs.	a.	p.
<i>Botany Department.</i>				
1. Lecturer in Botany—One	... 6th July 1953	3,821	15	0
2. Demonstrators—Two—				
1	... 2nd February 1953	4,934	5	0
2	... 11th February 1953			
<i>Geography Department.</i>				
1. Lecturer in Geography—One	... 22nd June 1953	2,573	0	0
<i>Mathematics Department.</i>				
1. Peon—One	... 12th November 1953	236	3	0
<i>Economics Department.</i>				
1. Lecturer in Economics—One	... 20th June 1953	2,593	11	0
Total		39,571	13	0
Total Expenditure—'A' and 'B'		42,786	9	0

## CHAPTER VIII.

## Karnatak University.

## INTRODUCTION.

(8.1) The Karnatak University was established by Bombay Act No. XX of 1949, and was incorporated on 1st March 1950. In this region, there are 3 Government Colleges, viz., the College of Agriculture, Dharwar, the Karnatak College, Dharwar and the Secondary Teachers' Training College, Belgaum. There are no Government Colleges for Engineering or Medicine.

## POST-GRADUATE EDUCATION.

(8.2) According to the Karnatak University Act, all Post-graduate teaching and research has to be conducted by the University or in such affiliated Colleges and in such subjects as may be laid down by the Statutes. The authorities of the University have instituted the following Departments for Post-graduate teaching and Research in the following subjects :—

(a) Kannada ; (b) Statistics ; (c) Geology ; (d) Physics ; and (e) Chemistry.

(8.3) Instruction is at present being given in all these Departments for the Master's Degree and some research students have been enrolled in all Departments, except Geology and Statistics. In addition to this, arrangements have been made, on an inter-collegiate basis, for lectures and laboratory instruction in several subjects for the M.A. and M.Sc. degrees, both at Dharwar and Belgaum. The procedure followed for making these arrangements, appears to us to be not quite regular. In accordance with the requirements of the Act, it is necessary that the authorities of the University should make the necessary Statutes to authorise what is being done. We were given to understand that the teachers from the different colleges, who are called upon to give instruction for the M.A. and M.Sc. degrees, are paid an honorarium. The University also makes grants for the conduct of the laboratory work of the students in the affiliated college. The University, thus incurs some expenditure on account of the arrangements made for post-graduate instruction in subjects, for which it has no Departments of its own. The authorities of the University have laid down certain minimum qualifications which must be fulfilled by a person before he is recognised as a Post-graduate teacher or a research guide. The Board of University Teaching, which has been established by Statutes, co-ordinates all this work. This body also makes recommendations to the Syndicate for the sanction of funds for conducting laboratory or other work or for schemes of research.

(8.4) Some provision for the Master's degree in Education has been made in Belgaum and some provision for Post-graduate degrees in Agriculture has been made in the College of Agriculture, Dharwar. We give below the subjects, in which Post-graduate teaching for the Master's degrees is undertaken by the University at Dharwar and Belgaum Centres.

*Dharwar Centre.*

English ;  
Sanskrit ;  
History (A, C and D Groups) ;  
Philosophy ;  
Mathematics (A and C Groups) ;  
Physics (Spectroscopy) ;  
Chemistry (Inorganic) ;  
Botany and  
Geology.

*Belgaum Centre.*

Marathi (Principal) ;  
History—A, B and C Groups ;  
Mathematics—B Group ;  
Physics—Radio Physics ;  
Chemistry—Organic and Inorganic,  
Botany.

(8.5) Apart from the facilities provided by the University Departments, the arrangements existing in the area of this University for research work are meagre. Some candidates have been enrolled for research in different subjects at the Karnatak College, Dharwar, and we understand that a few have been similarly enrolled at Belgaum.

(8.6) In reviewing the post-graduate teaching arrangements made by the University, we have to report that there is lack of adequate number of teachers for most of the subjects. This is made good by associating persons, not actually recognised, as associate teachers and entrusting them with some work. The general scheme appears to provide 2 lectures for a paper of 100 marks. Shortage of qualified teachers at either centre is made good by arranging to send recognised teachers from Dharwar to Belgaum and *vice versa*. We were also given to understand that a beginning has been made to give some tutorial instruction, but this question needs to be examined by the University on the lines indicated in the first part of our report. It is necessary that tutorials should be properly organized.

(8.7) It may be remarked that a good number of teachers doing post-graduate teaching belong to the Government Colleges. Sometimes these recognised teachers are transferred and this upsets the post-graduate teaching work of the University.

#### POST-INTERMEDIATE TEACHING.

(8.8) Geology is a very important subject for study and research for the region. The authorities of the University have instituted a Department of Geology and propose to make arrangements for post-graduate teaching and research in Geology. But we discovered that there is no College in the University area providing instruction in Geology for the B.Sc. degree. During the course of our discussion it emerged that students go outside the University area for studying Geology for the B.Sc., and then come back for the post-graduate course. This is not a satisfactory state of affairs. The University should have approached Government with a request to make provision for Geology for the B.Sc. degree at the Karnatak College before starting a University Department.

#### DEPARTMENTS NECESSARY.

(8.9) In view of the small number of institutions of higher learning and research in the Karnatak region, we consider that adequate provision should be made by the University in the following subjects :—

- |                             |                       |
|-----------------------------|-----------------------|
| (a) English,                | (g) Pure Mathematics, |
| (b) Kannada,                | (h) Physics,          |
| (c) Economics,              | (i) Chemistry,        |
| (d) History and Archæology, | (j) Botany,           |
| (e) Sociology,              | (k) Zoology, and      |
| (f) Statistics,             | (l) Geology.          |

(8.10) Having regard to the relative importance of the different cities and the average number of students studying at Colleges and desiring to pursue their studies beyond the degree stage, we consider that in addition to making necessary provision for teaching at Dharwar, the authorities are justified in making some provision at the Belgaum Centre also.

(8.11) The State Government is financing a Kannada Research Institute at Dharwar. This Institution is primarily meant to conduct investigations in Kannada language and literature, History, Archæology and Sociology. The Institution has been running for a long time and has some staff attached to it. This staff does some teaching work in addition to the research. Some of the employees of this institution are recognised teachers of the University. The Kannada Research Institute has a valuable collection of Manuscripts, books, etc. There is also a Department of Kannada in the University with a Professor and a Reader. It is not likely that this staff will have adequate work of teaching or guiding research in terms of the minimum work load indicated by us earlier. This Department can, therefore, make useful contributions by way of research on the lines envisaged in the aims and objects of the Kannada Research Institute. The authorities of the University informed us that they proposed to make some provision for the study of History and Archæology. This provision can best be made in co-operation with the staff of the Kannada Research Institute. In view of the needs of the University and the provision made in the Kannada Research Institute, which is a recognized Institution of the University, we are of opinion that overlapping of facilities can be avoided and saving of expenditure effected, if the Kannada Research Institute is handed over to the authorities of the University on condition that they maintain the present staff recruited by Government and continue to fulfill the aims and objects of the Kannada Research Institute. This Institute is at present housed in a rented building, which is not suitable for its needs. It is desirable to transfer this Institute to the University Campus, so that the present Department of Kannada of the University may make effective use of it. The Professor of Kannada in the University should be the Ex-officio Director of the Kannada Research Institute and the present separate post of Director should be abolished. This will not create any difficulties, since the post of Director of the Kannada Research Institute is at present vacant. The Professor of Kannada at the Karnatak College is working as Director in addition to his normal duties.

(8.12) It will be necessary for the University to appoint some additional staff in order to provide facilities at the Kannada Research Institute for teaching and research in History and Archæology Sociology and Politics in addition to Kannada language and Literature. There are three posts of Readers at the Kannada Research Institute at present. Of these, one is held in abeyance and instead a post of Assistant Director is created. There will be no need for such an adjustment after the Institute is taken over by the University. We propose, therefore, that the staff of the Kannada Research Institute under the University should consist of:—

1. Professor of Kannada Language and Literature and Director
2. Reader in Kannada.
3. Reader in History and Archæology.
4. Lecturer in History.
5. Lecturer in Sociology.
6. Lecturer in Politics.

Of the above posts, Serial Nos. 1 and 2 already exist in the Karnatak University. The remaining 4 posts are in lieu of the 4 existing posts of the Director and 3 Readers at the Kannada Research Institute. The Director's post is already held in abeyance. The persons working against the posts of the 3 Readers should be absorbed by the

University in the posts against Serial Nos. 3 to 6 above, according to their qualifications. Thus with practically no increase in expenditure, the Kannada Research Institute will become an adequately staffed Department of Kannada, History and Archaeology and Sociology. Politics will be taught as a subsidiary subject.

(8.13) We, therefore, recommend that the Kannada Research Institute be handed over to the authorities of the University with a suitable non-recurring grant for putting up a building for housing this Institut. Our calculations on grant-in-aid are based on the above recommendations.

#### SCIENCE DEPARTMENTS OF THE UNIVERSITY.

(8.14) The University has just started a Department of Physics, a Department of Chemistry and a Department of Geology. All these Departments are housed in accommodation made available in the Government Training College for Primary Teachers at Dharwar. This accommodation is not satisfactory and a fullfledged Science Department of Physics, Chemistry or Geology cannot flourish in the limited space available. Therefore, buildings for these Departments will have to be put up on the University Campus at considerable cost. In addition, some equipment will have to be purchased. Against this background, one has to consider the existence of a Department of Physics and a Department of Chemistry in the Karnatak College. Recently a building has been put up for the Physics Department of the Karnatak College. We inspected this building, which was nearing completion and considered carefully the available space in it in relation to the number of students in the Inter Science and B. Sc. classes in the Karnatak College. The Principal and the Professor of Physics felt that no space within this building could be made available for accommodating the Research or Post-graduate Section, or for housing the University Department of Physics. Housing of this University Department in the new Karnatak College building and leaving the administrative control of this Department in the hands of an authority other than the Principal will create complications. We fully appreciate this point of view. We are of opinion that it would be possible to find space in the new building for the University Department of Physics. This Department can be housed in the new building without creating any administrative problems, because the present Professor of Physics in the University happens to be a retired servant of the Government of Bombay. There should, therefore, be no difficulty in considering him as re-employed by Government. If this is done, he can become the Head of the Department of Physics in the Karnatak College and this Department can cater for all the needs in Physics from Intermediate up to the Ph. D. stage. The authorities of the University have purchased out of their funds and out of the funds of the Government of India a good deal of equipment. All this equipment can be transferred to this integrated Department of Physics. It is possible for the University to make Statutes specifying the College in which Post-graduate teaching and research should be done in a subject. A Statute can, therefore, be framed laying down that post-graduate teaching and research in Physics shall be conducted at the Karnatak College. The Department will then enjoy the status of a University Department and utilisation of the Government of India grants for it will be fully justified. The University authorities have created the post of a Reader in Physics also. It should be possible for Government to absorb this person, since he will be required for the normal teaching and research work of the Department. He may be absorbed in a suitable vacant post at the Karnatak College according to his qualifications, on the basis of the principles laid down in Chapter III (3.19). There is already a Professor of Physics who is employed on a contract basis at the Karnatak College.

He is, however, not recognised by the Karnatak University as qualified to guide research. In view of our proposal that the present University Professor of Physics should be the Head of the Physics Department at the Karnatak College, this extra post of Professor of Physics will not be necessary and at the expiration of the term of the contract, the existing post of Professor of Physics at the Karnatak College may be downgraded according to the needs of the Department. When the term of contract of the present University Professor of Physics expires, Government will have to advertise the post and recruit a person of sufficiently high qualifications, even by granting higher initial salary, if necessary.

(8.15) The above recommendation will provide better accommodation for the existing University Department of Physics, will avoid duplication of staff to some extent as between the University and the Karnatak College, and also raise the tone of instruction in Physics for under-graduate students at the Karnatak College.

(8.16) The problem set before us by the Chemistry Department, although similar to the Physics Department, is not entirely of the same type. The post of Professor of Chemistry in the Karnatak College is at present vacant. Therefore, taking over the present University Professor of Chemistry, who is himself a retired employee of the State Government, and re-employing him will cause no difficulties and the problem should be approached in same manner as that for the professorship of Physics. However, the buildings of the Karnatak College, do not have sufficient space for housing even the existing Chemistry Department properly. We, therefore, recommend that a suitable building comprising a floor area of about 10,000 square feet costing about Rs. 1½ lacs, should be put up for providing the necessary accommodation for post-graduate teaching and research in Chemistry at the Karnatak College. We recommend that the Chemistry Department of the Karnatak College should be reorganised and strengthened to serve as the University Department of Chemistry. After the term of contract of the present University Professor of Chemistry, who will occupy the post of Professor of Chemistry at the Karnatak College, expires, the post should be advertised by Government and filled by a properly qualified person. In fact this Department should be developed and up-graded on the same lines as proposed for the Physics Department earlier. The equipment purchased for its Chemistry Department by the University from funds provided by the Government of India, can be utilised at the Karnatak College, if the Karnatak University make statutes laying down that post-graduate teaching and research in Chemistry shall be conducted at the Karnatak College. The advantages of this scheme are the same as have been stated earlier in the case of the Physics Department.

(8.17) We consider Geology as a special subject in which full provision for teaching and research should be made in the Karnatak University area, because the Karnatak area is geologically important. However, we feel that such a provision cannot be made by the University as the authorities of the University cannot provide for instruction in Geology at the B. Sc. stage. We, therefore, recommend that Government should put up a suitable building in the Karnatak College compound and equip it for the teaching of Geology not only at the B.Sc. stage, but also for post-graduate teaching and research. This Department in the Karnatak College should serve as the University Department of Geology, on the same lines as for Physics and Chemistry. The equipment purchased from the Government of India grant, can be taken over. As regards staff, the Department of Geology will require one Reader, one Assistant Professor and one Lecturer. We understand that the present Reader in Geology in the Karnatak University was on the staff of the

Karnatak College and his services have been lent to the University. There should, therefore, be no difficulty in reverting him to Government service and appointing him to a post in the Geology Department of the Karnatak College suitable to his qualifications and experience. There is no other Geology staff in the Karnatak University and hence the remaining two posts in this department in the Karnatak College may be filled by Government.

(8.18) We would like to point out that although Geology is not a basic subject as envisaged by us earlier, we have recommended the development of this Department solely on the ground that the Karnatak region is Geologically rich in material which will lead to the establishment of an all India School of Geology in Dharwar. It is, therefore, obvious that it would be quite reasonable to expect the Government of India to give a grant to this Department for building and equipment. Some equipment grant has already been received by the Karnatak University for Geology. The University will be well advised to press its claims before the Central Government for a building grant for this Department and put up a building for its Department of Geology near the Karnatak College. We, therefore, do not propose to include in our recommendations any building grant for this purpose.

#### KARNATAK COLLEGE.

(8.19) From the recommendations made in the previous paragraphs, it is clear that we envisage considerable up-grading of the Karnatak College, so that it could serve as a nucleus for several University Departments. Further the existence of such Departments of University rank with research going on would improve the tone and quality of teaching at the under-graduate level. In addition to the three Departments we have indicated above, it is necessary for the Karnatak College to meet the needs of post-graduate teaching and research for the University in Botany and Zoology. For both these subjects, it may be possible without much addition to the existing equipment and by careful utilisation of the available space to provide the necessary facilities in the Karnatak College. The Biology Department of the Karnatak College has at present 2 Class II posts and 1 Class III post. The Zoology Department has 1 Class I post and 2 Class III posts. It will be necessary to have in each of the re-organized departments of Botany and Zoology, one Reader, one Assistant Professor and two Lecturers. The Reader will be the head of the Department and will be responsible for organising post-graduate teaching and research in his subject in addition to teaching in the Karnatak College.

(8.20) There is another basic subject for which the University has, so far, not made any provision and that is pure mathematics. Karnatak College is the only proper place where the necessary provision can be made with added advantage not only to the University and Government, but to the under-graduate students. We recommend, therefore, that a post of Reader in pure Mathematics be created at the Karnatak College and filled subject to the basic qualifications we have indicated earlier. This Reader with the existing staff in the Mathematics Department of the Karnatak College will be adequate for post-graduate teaching and research in pure Mathematics and with the assistance of the University staff in Statistics will constitute the Department of Statistics and Mathematics. On the Arts side, the two branches of knowledge for which the necessary provision has to be made are English and Economics. There is a post of Professor of Economics at the Karnatak College. This post will have to continue. In addition, this Department should have one Assistant Professor and one Lecturer. Thus the Economics Department of the Karnatak College will be equipped for full teaching in Economics for

under-graduate students in the Karnatak College and for teaching and guiding post-graduate students in Economics. Similarly, addition of one Reader in English at the Karnatak College will provide for post-graduate teaching in English.

(8.21) If the teaching Departments of the Karnatak College are up-graded and reorganized to serve as post-graduate departments of the University in several subjects, there will be economy in expenditure as compared with the creation of these departments independently by the University. The students at the Karnatak College will also benefit by the location of the University Departments in the Karnatak College. The need for University Departments in these subjects is a justifiable need and we feel that the only practical way of meeting the University's justifiable needs and at the same time avoiding duplication of facilities is the suggestion made above.

(8.22) Our calculations for grants to the University are based on the assumption that our recommendations for the raising of the level of the Karnatak College, are acceptable to Government. It should be distinctly understood, however, that if our recommendation to up-grade the Karnatak College are not accepted by Government, recurring and non-recurring grants to institute and equip the required Departments in the various subjects and fill the required posts will have to be made to the University and expenditure on that account will be higher than what our proposals involve.

#### POST-GRADUATE INSTRUCTION AT BELGAUM CENTRE.

(8.23) As explained to us by the authorities of the University and as discussed by us earlier in this Chapter, we consider that there should be a post-graduate teaching centre at Belgaum also. At this centre, teaching in the following science subjects may be permitted for the M.Sc. course :—

Physics—Radio Physics ;  
 Chemistry—Organic and Inorganic ;  
 Botany ; and  
 Mathematics—B Group.

In addition, permission may be given for instruction in Marathi and History, Groups (A, B, C) for the M.A. degree. We find that for some of these subjects, qualified teacher actively engaged in Research are not available at Belgaum. In such cases, the provision for M.A. and M.Sc. at Belgaum may be continued if the University can arrange for a weekly visit of a qualified teacher of this category from Dharwar. Further, the University should ensure that adequate library and laboratory facilities are provided at Belgaum, by means of periodical inspection by the Head of the University Department concerned. Every care should be taken to see that the standard of instruction at Belgaum is not lower than that at Dharwar. As for the subjects in which instruction should be given at Dharwar, we have already indicated them, but it would perhaps be better to reproduce them below :—

#### Science subjects.

Physics ;  
 Chemistry ;  
 Geology ;  
 Botany ;  
 Zoology ;  
 Mathematics.

#### Arts subjects.

Kannada ;  
 English ;  
 Economics ;  
 History and Archaeology.  
 Sociology and  
 Politics (as a subsidiary subject).



(8.24) We have already recommended the making of suitable provision for all these subjects. Where necessary, the University may make use of qualified teachers from affiliated colleges other than the Karnatak College also. Teachers in affiliated colleges may, however, retire and may not be replaced by teachers similarly qualified. We have, therefore, made an allowance for appointment by the University of two or three lecturers in case of need and included such expenditure in the grants recommended by us.

#### LIBRARY.

(8.25) The Karnatak University is spending quite liberally on the library and the budget estimates show an expenditure of about Rs. 70,000 for the year 1953-54. We think that a library can be of no real use until it is properly housed and sufficient reading space is provided. We, therefore, recommend that a suitable non-recurring grant be given to the University for putting up the library building on the University Campus. A building with the ground floor costing about Rs. 1.5 lacs should be adequate for the next five years. A floor can then be put up on this building when there is need for further expansion. The Karnatak and Gujarat Universities will require a larger initial outlay for purchase of costly books of reference and back numbers of journals. We feel that over and above the general non-recurring grant of Rs. 50,000 for general purposes and Rs. 1,000 per University Department, the Karnatak and Gujarat Universities may be paid Rs. 10,000 per year for a period of 3 years to enable them to build up their libraries. We, therefore, consider an expenditure of Rs. 45,000 for books, journals and periodicals, to be quite adequate for a University of this size and our budget calculations are made on this basis.

(8.26) No separate table of posts in the post-graduate departments of this University need be given since most of the University Departments are proposed to be located in the Karnatak College. The posts which will remain with the University from the year 1955-56 onwards will be those of 1 Reader and Lecturer in the Department of Mathematics and Statistics and 1 Professor, 2 Readers and 3 Lecturers in the Kannada Research Institute which, it is presumed, will be taken over by the University and reorganised as described earlier, with effect from 1955-56.

#### NON-RECURRING GRANTS.

(8.27) Our recommendations involve the following non-recurring expenditure :—

		Rupees in lacs.	
Non-recurring Grants to the Karnatak University.	{	(i) Building on the University Campus to house the Kannada Research Institute and the University Departments of Kannada, History and Archaeology, Sociology and Politics. ..	3.0
		(ii) University Library building ground floor ..	1.5
		4.5	
Buildings to be put up in the Karnatak College Compound	{	(i) Chemistry Building ..	1.5
		(ii) Geology Building ..	1.5
		3.0	
Grand Total		7.5	

## RECURRING GRANTS.

(8.28) The first head to be considered for the maintenance of the University is Administration, comprising the items enumerated in the Chapter on the Poona University. An examination of the budget of the University for the year 1953-54 shows a gap of about Rs. 1.8 lacs. It should be possible to reduce the gap by about Rs. 10,000 by economy on examinations. Apart from this, we do not see any possible reduction of expenditure. In this connection, it is necessary to point out that there is a paid Vice-Chancellor for this University in accordance with the Statutes approved by Government, which increases the expenditure on establishment. Further as this University has a small number of students appearing for the different examinations, a large surplus of income over expenditure cannot be expected on examinations. Having regard to all these facts and the fact that expenditure will rise from year to year due to increments earned by the staff and increase in contingencies, etc., we recommend a grant on this head of Rs. 1.7 lacs, increasing to Rs. 2.1 lacs, at the rate of about 6 per cent. annually. This grant should then be stabilised at this figure and no further increase need be allowed.

(8.29) The expenditure for the teaching side of the University is estimated by us as follows separately for the years 1954-55 and 1955-56 :—

1954-55.	In lacs.	1955-56.	In lacs.
(a) Deficit based on the budget estimates of 1953-54, for Teaching and Research.	1.60	(a) For maintaining the Belgaum Centre for post-graduate instruction on the lines envisaged by us in the 1st Part of this Report.	0.64
(b) Library books and journals ..	0.45	(b) For the University Department of Statistics.	0.20
Rs.		(c) For the Kannada Research Institute, including the University Departments of—	0.90
(i) General ... 30,000		(i) Kannada.	
(ii) University Departments 5,000		(ii) History and Archaeology and Politics.	
(iii) Non-recurring for 10,000		(iii) Sociology.	
3 years for building up the University Library.		(d) Library Books and Journals ..	0.46
45,000		Rs.	
Total .. 2.05		(i) General 30,000	
		(ii) University Departments 6,000	
		(iii) Non-recurring for 10,000	
		3 years for building up the University Library.	
		46,000	
		(e) Miscellaneous ..	0.20
		Total .. 2.40	

(8.30) Making an allowance for the rise in expenditure, due to increments in the salaries, etc., the recurring expenditure on teaching departments of the University is expected to rise from Rs. 2.4 lacs to Rs. 2.9 lacs. An increase of Rs. 20,000 annually is allowed under Teaching and Research to cover increments of

teaching staff, appointments of ancillary staff such as research assistants, etc., an increase in expenditure on research grants and grants for publications. The table below gives all these estimates in a tabular form :-

	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
	Rupees in lacs.	Rupees in lacs.	Rupees in lacs.	Rupees in lacs.	Rupees in lacs.
Administration ..	1.7	1.8	1.9	2.0	2.1
Teaching and Research	2.05	2.4	2.6	2.7	2.9*
	3.75	4.2	4.5	4.7	5.0

\* Non-recurring Library grant of Rs. 10,000 discontinued.

(8.31) It may be distinctly understood that this calculation has been made on important assumptions—

(a) the handing over the Kannada Research Institute to the University for maintenance and development and its re-organisation as suggested by us with effect from 1955-56,

(b) the abolition of the Physics, Chemistry and Geology Departments, at present maintained by the University, but to be handed over and to be developed in the Karnatak College by Government.

(8.32) The list of posts filled by the Karnatak University since 18th September 1952, is attached at the end of this Chapter, as Appendix (b) (*vide* paragraph 7.40).

#### ACKNOWLEDGEMENT.

(8.33) We are grateful to Shri C. C. Hulkoti, the Vice-Chancellor, Karnatak University, Prin. V. K. Gokak, Prin. G. S. Paramasivaya, Prof. V. V. Jatti, Shri H. F. Kattimani, Dr. K. S. Nargund, Prof. S. S. Malwad, Dr. N. R. Tawde, Prin. S. W. Mensinkai, Prof. B. B. Bagi, Prof. C. D. Deshpande, Prof. T. N. Srikantiya, Prof. N. U. Prabhu and Shri M. S. Bagali, Registrar of the University, for the facilities provided to us during our visit. We are also grateful to Prin. V. K. Gokak, Prin. S. W. Mensinkai and Prof. S. S. Malwad for being good enough to take us round and discuss with us the problems of the Karnatak College, Dharwar, the College of Agriculture, Dharwar, and the Kannada Research Institute, Dharwar.

APPENDIX (b) TO CHAPTER VIII—KARNATAK UNIVERSITY.

Statement showing Expenditure incurred up to 31st March 1954, on account of Pay and Allowance of the Teaching Staff appointed over new Educational Developments at the Karnatak University, Dharwar.

Serial No.	Designation of post.	Date of creation quoting reference to Resolution of the authority concerned.	Date of filling of the post.	Pay and allowance with scale.		Expenditure up to 31st August 1953.	Expenditure from 1st April 1953 to 31st March 1954.	Total expenditure (up to 31st March 1954).	
				Scale.	Pay and D. A.			Rs.	a. p.
1	Reader in Statistics	Senate Resolution No. 6 of 29th and 30th September 1950.	4th November 1952	300—25—650	375+70	1,735 8 0	5,398 0 0	7,133 8 0	
2	Lecturer in Statistics.	Senate Resolution No. 12 of 20th June 1953.	9th January 1954 ..	250—15—400	250+60	Nil.	540 0 0	540 0 0	88
3	Professor of Chemistry.	Senate Resolution No. 6 of 29th and 30th September 1950.	15th June 1953 ..	600—50—1,100	700+85	Nil.	6,698 10 0	6,698 10 0	
4	Professor of Physics	Senate Resolution No. 6 of 29th and 30th September 1950.	21st October 1953	600—50—1,100	700+85	Nil.	3,418 9 0	3,418 9 0	
5	Reader in Physics	Senate Resolution No. 12 of 20th June 1953.	10th February 1954	300—25—650	475+70	Nil.	369 13 0	369 13 0	
6	Reader in Geology	Senate Resolution No. 6 of 29th and 30th September 1950.	4th February 1954	300—25—650	300+60	nil.	321 7 0	321 7 0	
						1,735 8 0	16,746 7 0	18,481 15 0	

## CHAPTER IX:

## Gujarat University.

## INTRODUCTION.

(9.1) The Gujarat University was established under Bombay Act No. L of 1949 and started functioning from 23rd November, 1950, when all the authorities of the University were regularly constituted. This University, as envisaged by the Act, is to be both a teaching and affiliating University. The affiliating jurisdiction of this University extends over all the Gujarati speaking districts in the State of Bombay except the Baroda University area. In addition, the University is permitted to affiliate colleges in the State of Saurashtra and Cutch. As such, the University has to shoulder heavy responsibilities in its capacity as an affiliating University. Post-graduate teaching is the direct responsibility of the University and the University can, when it so desires, take control of post-intermediate education in the Ahmedabad area.

## POST-GRADUATE EDUCATION.

(9.2) According to Section 39 of the Gujarat University Act, all post-graduate instruction, teaching and training shall be conducted by the University or by such affiliated colleges or institutions and in such subjects as may be prescribed by the Statutes. The authorities of the University were required by the Act to make the necessary statutes under Section 39 (1). From the information supplied to us we noticed that no such statutes have so far been made. In the course of our discussion with the Vice-Chancellor, we raised this issue and the note sent to us by the Registrar on this point is as follows:—

“ Under Section 39 (1) of the Gujarat University Act, statutes may be framed for prescribing the subjects in post-graduate instruction. A Committee has been appointed to prepare a scheme for the co-ordination of post-graduate studies in the affiliated colleges as well as recognised institutions of the Gujarat University. That Committee is expected to make its report by the end of this month and after the report is considered by the Syndicate and the scheme is sanctioned, the necessary statutes will be framed by the Syndicate for implementing the scheme and placed before the Senate and thereafter sent to the Chancellor for approval.”

(9.3) This statement makes it clear that even the basic requirements for making a systematic beginning of post-graduate instruction have yet to be fulfilled. We understand that the authorities have made some rules for the recognition of teachers for post-graduate teaching and laid down certain minimum qualifications for such teachers. On that basis, some teachers in Ahmedabad and outside have been recognised for post-graduate teaching or for guiding research. Post-graduate teaching and research seem to be going on in the same loose and indefinite manner in which it was carried on during the days when colleges in this area were affiliated to the University of Bombay. At the time of our visit to the University we were given some idea of the way in which the authorities proposed to proceed in the matter. They said that they were going to plan a zonal system of post-graduate teaching in 3 centres or so in the Gujarat University area. We found, however, that no scheme was yet formulated. Under the circumstances, it is difficult for us to examine or make any recommendations for, the organization of post-graduate teaching and research in the Gujarat University area. We may, however, mention

that facilities for post-graduate teaching exist in the affiliated colleges both in Ahmedabad and outside, in certain basic subjects in the Arts and Science Faculties and also in other Faculties. The following subjects are covered by the existing facilities :—

<i>M.A.</i>	... Sanskrit, Gujarati, Urdu, Persian, Ardhamagadhi, English, History and Economics, Politics, Sociology, Philosophy, Mathematics.
<i>M.Sc.</i>	... Physics, Chemistry, Botany, Mathematics, Geology.
<i>Ph.D.</i>	... Gujarati, Physics, Chemistry, Ardhamagadhi, Philosophy, Sociology, Economics.

In addition to the above, there are colleges teaching courses leading to M.Com., LL.M., M.Sc. (Agri.), M.E., M.Pharm., and M.D. and M.S. degrees.

(9.4) We should like to stress that there is obviously a great need for organizing and developing post-graduate teaching and research facilities in the Gujarat University area. We are of the opinion that co-ordinated teaching for the following subjects leading to the Master's degree should be provided in Ahmedabad and for a few of them in Centres outside Ahmedabad. It would be incorrect for us either to plan or to indicate any further details in this matter. We are, therefore, giving the list of subjects and we shall utilise the same for making a very rough assessment of the grant in-aid necessary. We have done this as we feel that Government should be appraised of the real needs of Gujarat but we recommend that specific grants should not be sanctioned till the schemes have been properly scrutinized and assessed :—

#### *Subjects.*

- |                                |                                   |
|--------------------------------|-----------------------------------|
| (1) Gujarati..                 | (7) Pure and Applied Mathematics. |
| (2) Sanskrit and Ardhamagadhi. | (8) Physics.                      |
| (3) English.                   | (9) Chemistry.                    |
| (4) Economics and Sociology.   | (10) Botany.                      |
| (5) History and Politics.      | (11) Zoology.                     |
| (6) Industrial Psychology.     |                                   |

(9.5) The Gujarat University has in its letters (No. Acctt./52702, dated 2nd December, 1953, and No. Acctt./52703, dated 2nd December, 1953) proposed to institute the following two post-graduate teaching Departments from June, 1954 :—

1. School of Social Sciences,
2. School of Gujarati Language and Literature.

(9.6) In this connection, it may be observed that the University has proposed the institution of these schools by a resolution of the Senate and this does not appear to us to be the correct procedure. Section 28 (v) of the Gujarat University Act read with Section 39 (I) indicates that departments should be instituted by framing the appropriate statutes, laying down the subjects in which post-graduate instruction shall be given. The Gujarat University has not yet framed such statutes. It is, therefore, for Government to examine whether the institution of these Departments from 20th June, 1954, without the framing of proper statutes is not *ultra vires* of the Act.

(9.7) The University has proposed the following teaching staff for the School of Social Sciences :—

1. Professor of Economics (with an allowance of Rs. 100 for acting as the Director of the School).
2. Reader in Economics.
3. Professor of Statistics.
4. Lecturer in Statistics.
5. Reader in Politics.
6. Reader in Sociology.
7. Reader in Anthropology.
8. Reader in Industrial Psychology.

With this staff, the University propose to teach eight papers in each of the subjects of Economics, Sociology and Politics and six papers and two practicals in Statistics.

(9.8) We have examined the proposals contained in their letters referred to above and we have to make the following recommendations :—

#### I.—SCHOOL OF SOCIAL SCIENCES.

The proposed School of Social Sciences should work as a University Department with the following staff :—

- |                                       |                              |
|---------------------------------------|------------------------------|
| (1) A Professor of Economics.         | (4) A Lecturer in Politics.  |
| (2) A Reader in Economics.            | (5) A Lecturer in Sociology. |
| (3) A Lecturer in Applied Statistics. |                              |

The above mentioned staff will be adequate for the teaching of entire Economics (eight papers), 2 papers in Applied Statistics (Econometrics), 4 papers in Politics and 4 papers in Sociology.

(9.9) The Professor and the Reader in Economics should be able also to guide research and do research work themselves. Provision for two Readers in Statistics already exists in the neighbouring University of Baroda. It is, therefore, not necessary to provide for a Professorship in Statistics in Ahmedabad. We have, therefore, provided for a Lecturer in Applied Statistics to assist in the teaching of the two papers in Econometrics, which are a part of the syllabus in Economics.

(9.10) Adequate facilities for post-graduate teaching and research in Politics already exist in the University of Bombay. There is also not much demand for a full course in Politics at the post-graduate level. In the circumstances, four papers in Politics can be taught by a Lecturer in Politics. We have, therefore, provided for one Lecturer in Politics.

(9.11) Adequate provision for post-graduate teaching and research in Sociology already exists in the neighbouring University of Baroda. It is, therefore, not necessary to duplicate this facility in Ahmedabad. Provision has, therefore, been made for teaching Sociology (four papers) at the post-graduate level by providing a lecturer instead of a Reader.

(9.12) The Gujarat University has at present no post-graduate syllabus or course of studies in Anthropology. It is, therefore, premature to institute a Readership in Anthropology, as the incumbent will have no work.

(9.13) The Department of studies in Industrial Psychology will obviously require a large staff of teachers and field workers and a well-equipped laboratory. In the absence of any well-thought-out scheme for the Department, the mere provision of a Readership will not serve any useful purpose. It is open to the University to prepare a complete scheme and submit it to Government for consideration.

(9.14) The above mentioned staff should constitute the Department of Social Sciences with the Professor of Economics as its head. We do not see the need for a Director drawing an allowance of Rs. 160 per mensem. The question of appointing a Director does not arise at this stage.

(9.15) In the initial stage, it does not appear necessary to have an Assistant Librarian as both the Department and the Library will be housed in the University administrative buildings. The University library is being built up and can easily have a Section for this Department under the University Librarian.

(9.16) It is not at present necessary also to engage the clerical staff proposed by the University. The clerical work, if any, will be of a very light nature and should be done by the University office.

## II.—SCHOOL OF GUJARATI LANGUAGE AND LITERATURE.

(9.17) The University has proposed the appointment of a Professor and two Research Fellows for this School. The M. S. University of Baroda has already a Department of Gujarati Language and Literature with a Professor and four Lecturers on its staff. Ordinarily, we would not have recommended the institution of a Department in the same subject in Ahmedabad. However, since the Gujarat University has a large territorial jurisdiction covering almost the entire Gujarati-speaking area, it would be appropriate for the Gujarat University to have a chair in Gujarati language and literature. We, therefore, recommend that the University's proposal to institute a Professorship and two Research Fellowships may be accepted. The Professor of Gujarati should be able to secure adequate assistance for teaching and research in his subject from the existing staff of the B. J. Institute of Learning and Research.

For the reasons stated above in the case of the School of Social Sciences, no office staff is necessary for the School of Gujarati Language and Literature. (Copies of the letters from the Registrar, Gujarat University are attached at the end of this Chapter as Appendix "C").

(9.18) By adding a Reader to the Department of English in the Gujarat College, it will be possible to make provision for teaching English to post-graduate students. We are not making any detailed suggestions for starting a department of Sanskrit and Ardhamagadhi as facilities already exist at the B. J. Institute of Learning and Research.

(9.19) We are not in favour of duplicating facilities for the study of statistics which already exist at Dharwar, Poona, Bombay and Baroda. Instead of this, we recommend that provision be made for a department of Pure and Applied Mathematics. Provision for the same can be made in the Gujarat College, Ahmedabad, by the addition of a Reader in Applied Mathematics immediately and a Reader in Pure Mathematics after a year or two. This would be a very appropriate step, not only for the University but for the Gujarat College itself. Similarly, provision for teaching and research in Physics, Chemistry, Botany and



Zoology should also be made in the Gujarat College, Ahmedabad. The Physical Research Laboratory at Ahmedabad is a Recognised Institution conducting research in Cosmic Rays and Nuclear Physics. There is also a full-fledged department of Physics at the Gujarat College with a Professor of Physics as the Head of the Department. It should be possible to co-ordinate these facilities into a well-knit University Department of Physics by adding to the facilities available at the Gujarat College. The University Department of Physics should be located in the Gujarat College so that the available facilities and staff will be fully-utilised. The Professor of Physics at the Gujarat College suggested that there was some equipment at the Institute of Science which was specially bought for his use when he was at the Institute and that this apparatus was not in use and should be transferred to the Gujarat College. We feel that it would be better if Government called for a list of all costly research apparatus not in use at Government Colleges and circulate the full list to all Government Colleges so as to ensure better utilisation of existing equipment.

(9.20) On the same lines as for Physics, we recommend that the departments of Chemistry, Botany and Zoology at the Gujarat College be developed into full-fledged University Departments in these subjects. The staff required in these University Departments will be as follows:—

Existing Staff.		Staff required for the University Department including staff for undergraduate teaching at the Gujarat College.	
Physics	... 1 Professor (contract post). 2 Lecturers. 3 Assistant Lecturers.	Physics	... 1 Professor. 1 Reader. 3 Assistant Professors. 3 Lecturers.
Chemistry	... 1 Professor 3 Lecturers. 5 Assistant Lecturers.	Chemistry	... 1 Professor. 2 Readers. 3 Assistant Professors. 5 Lecturers.
Biology	... 1 Lecturer 3 Assistant Lecturers.	Botany	... 1 Reader. 1 Assistant Professor. 2 Lecturers.
Botany	... 2 Lecturers	Zoology	... 1 Reader. 1 Assistant Professor. 2 Lecturers.

It will be necessary to put up a new building for these post-graduate departments with a floor space of about 40,000 square feet costing about Rs. 6.0 lacs. The advantages of up-grading the science departments at the Gujarat College are the same as those described in the Chapter on Karnatak University. (*Vide* paras. 8.15 and 8.21.)

#### POST-INTERMEDIATE EDUCATION.

(9.21) According to Section 40 and 41 of the Gujarat University Act, the Gujarat University can, when it so desires, take complete control of even post-intermediate education in Ahmedabad areas. The authorities of the University could not give us any details about the possible date when they contemplate taking over control of post-intermediate education. Under the circumstances, this problem and its financial consequences are not likely to arise during the course of the next 5 years. We shall, therefore, make no recommendation on the financial consequences of Sections 40 and 41 of the Act.

## BUDGET.

(9.22) According to the budget estimates for the year 1953-54, the income from examination fees is Rs. 4,51,000 and the expenditure on account of examinations is Rs. 4,49,000. A glance at these figures shows that the expenditure under this head is abnormally high. A large number of candidates appear for these examinations and, therefore, we feel that the University authorities should be in a position to rationalize and reduce expenditure on examinations, considerably. Payment to Colleges on account of consumables used at University examinations requires reduction. Payment to examiners for conducting practical examinations may also be revised. Where uneconomic centres have been permitted for examinations, it is open to the University to levy a centre fee which should be collected from the authorities of the institution or from the students desiring to take advantage of the centre. In view of the above remarks, we feel that the University should be in a position to make a net saving of at least Rs. 50,000 under this head and it should immediately take the necessary steps towards the same. The estimates of the University for Printing, Stationery, and Postage are also rather high and require scrutiny at the hands of the authorities. The University is spending about Rs. 80,000 on Physical Education activities, games, sports, etc. This sum for this sphere of University activity appears to be disproportionate. The University has employed a Director of Physical Education and a Chief Medical Officer. The University has no hostels of its own which the Chief Medical Officer can supervise. The Director of Physical Education also has apparently no specific duties apart from organizing and co-ordinating games and sports. If it is intended that the Director of Physical Education and the Chief Medical Officer should carry out some investigations in the matter of Physical norms or standard diets, the University should prepare a separate scheme for it but the employment of full-time staff for the purpose is not justified. No other University incurs similar expenditure. Government make an annual recurring grant of Rs 4 lakhs to the University and about 20 per cent. of it is being diverted into this one sphere. If the University authorities desire to carry out the medical examination of their students, the correct procedure would be to levy a fee of a compulsory character on each student and meet a large part of the expenditure incurred on this account. Under the circumstances, we are strongly of the opinion that unless the University finds a source of income for this activity, it should not incur expenditure of this magnitude. We cannot possibly justify an expenditure of more than Rs. 25,000 for sports and similar other activities from the income of the University derived by Government grants.

(9.23) The authorities of the University have made a provision of Rs. 1,06,000 on an *ad hoc* basis for encouraging publication in Gujarati, of text books for teaching the different classes through the medium of Gujarati. This appears to us to be special non-recurring expenditure. It would be desirable for Government to request all Universities to take the permission of Government before they commit themselves to special expenditure of this type. As the authorities were not in a position to furnish us with any further details in the matter, it becomes difficult for us to justify or otherwise comment on this item of expenditure. But we must remark that making such a large provision in the budget under recurring expenditure without making reasonably certain that the amount will be spent in that year is, to say the least, bad budgeting. It would be better for the University to draw up a scheme of publication of text books on a three or five year basis and after working out the

cost approach Government for a non-recurring grant for the purpose for the duration of the scheme. In any such scheme, obviously such a large sum as Rs. lac. is not likely to be required in any one year.

(9.24) The University proposes to spend a sum of Rs. 86,000 on the library. It has no department of its own and we presume that the library is likely to be a general purpose library for use by the staff and students of the affiliated colleges. The budget provision includes Rs. 17,500 estimated for the pay and allowances of the Librarian and his staff. The balance of Rs. 68,500 is proposed to be spent on books and journals. This figure is too high for a University which has no post-graduate departments. As in the case of the Karnatak University, an amount of Rs. 30,000 for the General Library and Rs. 3,000 for the proposed departments of Economics including Sociology and Politics and Gujarati, and an additional Rs. 10,000 for 3 years for the general building up of the library should be more than adequate. We propose to allow, therefore, Rs. 43,000 only for books and journals. If greater provision is made, there is always the danger of accumulation of books not necessarily required for frequent use or frequent reference. In this connection we have to point out that not only reprints of books but also of articles from valuable journals can be obtained in the form of micro-films or in typo-scripts at little cost. Under the circumstances, there is not to-day as much need to build up huge libraries. There is justification for expenditure on books and journals which are to be used very frequently by the students and staff of the University or its affiliated colleges and which are not available in the libraries of the affiliated colleges in the University area.

(9.25) In the light of the foregoing remarks, we examined the budget estimates of the Gujarat University for the year 1953-54. We feel that the charges for the establishment of the Registrar's office estimated at Rs. 1,42,550 are rather high. These are nearly the same as those for the Poona University which runs 10 post-graduate departments and which conducts post-intermediate instruction. Even after allowance is made for the colleges situated in Saurashtra and Cutch, there is obviously room for economy and we suggest that the University examine this question and reduce the staff. If this is not done, the staff will grow enormously when post-graduate departments are added. We may remark in passing that as the charges under 'Administration' are likely to be higher on account of the inclusion of Saurashtra and Cutch, it would be reasonable for the University to request both those Governments to pay a recurring grant to the University towards Administrative charges. Apart from this point, we are excluding the provision of Rs. 1,06,000 for text books, reducing Physical Education by about Rs. 50,000 and provision for Library by about Rs. 25,000. We also expect a saving of at least Rs. 50,000 on account of Examinations. The deficit on Administration will then work out at Rs. 2.2 lacs. We have not taken into account reduction in expenditure on University Establishment but we feel that this expenditure can be reduced by about 12½ per cent., i.e., by about Rs. 18,000. Thus a grant of Rs. 2 lacs on account of administration should be adequate. As, however, reduction of expenditure on staff will not be possible during 1954-55, we are allowing Rs. 2.2 lacs during this year, but we are not allowing any increase for the year 1955-56. Thereafter, we have allowed the normal increase of about 6 per cent. i.e., Rs. 10,000 annually till 1958-59. In addition to this, the University will require for its Department of Economics which is to be started, an amount of Rs. 40,000 for expenditure on staff and contingencies. Similarly for the Department of Gujarati, the University will require Rs. 20,000 for staff and contingencies. We are including these amounts within grants recommended for 1954-55 on the assumption that

these departments are started during the current year. In addition, special grants will be required for the Department of Industrial Psychology when started. We are leaving the corresponding expenditure out of account as it is not possible for us to estimate the expenditure in the absence of a detailed scheme furnished by the University. We may remark here that the University has provided for an amount of Rs. 35,000 for Research Grants and Scholarships. This amount is included in our recommendations. It is not clear to us, however, on what basis the University has provided for Rs. 1 lac for teaching and research. It seems that this is also an *ad hoc* provision similar to that for text books. We naturally cannot include this amount though we do feel that for the conduct of post-graduate instruction on a zonal basis the University will certainly require provision for payment of honoraria to its recognised teachers and will have to spend on providing additional Library and Laboratory facilities at Ahmedabad as also at 2 or 3 outside centres. We take it that the University will do this immediately and hence we are allowing a provision of Rs. 60,000 for each such post-graduate centre as follows. Rs. 60,000 for the Centre at Ahmedabad during 1954-55 and additional Rs. 60,000 for another Centre from 1955-56 and another Rs. 60,000 for a third Centre from 1956-57. These amounts should not be sanctioned until these zonal schemes are approved by Government. Thereafter, we visualise no increase in further centres till 1958-59. In addition to the above, we are allowing an increase of Rs. 20,000 annually under this head for normal increase due to increments, increase in contingencies and appointment of 2 or 3 lecturers in subjects where there may be shortage of contributed teachers. We are, however, discontinuing the additional non-recurring grant of Rs. 10,000 for the Library from the year 1957-58 onwards.

(9.26) In view of our recommendations to up-grade the science departments of the Gujarat College to serve as University Departments, no expenditure will be incurred directly by the University. If, however, Government are unable to accept our recommendation to up-grade the Science Departments at the Gujarat College and put up a building there, the University will have to be paid grants for putting up and furnishing its own post-graduate laboratories and for the staff. Apart from this, the University should have a separate Library building. We understand that the University Administrative building which is at present under construction, has some accommodation for the Library. If this is not enough, the University should approach Government for a non-recurring grant for the Library. In addition, when the post-graduate departments of the University grow, the University will require a hostel. Non-recurring grants for this purpose also will have to be paid to the University when the University submits proposals. In view of lack of precise information regarding the non-recurring needs of the University, we are unable to make any specific recommendations for the purpose.

(9.27) We, therefore, recommend the following grants to this University during the next 5 years :—

	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
	Rs. in lacs.	Rs. in lacs.	Rs. in lacs.	Rs. in lacs.	Rs. in lacs.
Administration ...	2.2	2.2	2.3	2.4	2.5
Teaching and Research	†1.55	†2.35	†3.15	*3.25	*3.45
Total	3.75	4.55	5.45	5.75	5.95

\* (Rs. 10,000 for Library, Non-recurring, discontinued.)

† (Including Rs. 60,000 for each zonal Centre.)

## GUJARAT COLLEGE.

(9.28) As in the case of the Karnatak College, we have deliberately recommended that the Gujarat College should be organised and developed to serve as the nucleus for post-graduate teaching and research for the Gujarat University for some years to come. In our opinion, teaching and research facilities should be provided in the following subjects in the Gujarat College in order to meet the requirements of the Gujarat University :—

- |                                  |                 |
|----------------------------------|-----------------|
| 1. Pure and Applied Mathematics, | 4. Botany,      |
| 2. Physics,                      | 5. Zoology, and |
| 3. Chemistry,                    | 6. English.     |

(9.29) It may be remarked that the University has not asked for opening the above Departments, but has expressed a desire to open a Department of Bio-Chemistry and Soil Economics. We feel, however, that each of the State Universities must make provision for what we have described earlier as basic subjects. A study of these subjects has to be encouraged not only to meet the large demand for them, but on account of the intrinsic importance of the study of basic and cultural subjects. After these basic departments are well-established, the time would be ripe for opening departments of special interest to the region. It is for this reason that we have also included English as one of the subjects. The University is to have its own Department of Economics with provision for Politics and Sociology as subsidiary subjects and this department may later develop into a full-fledged school of Social Sciences teaching History and Politics, Economics and Sociology. At this stage, however, it is only by improving and supplementing the existing facilities at the Government Colleges that the Universities can have the corresponding post-graduate departments in the most economical manner. We have also another objective in mind. These Government Colleges for long past have enjoyed a local reputation and location of a number of University Departments in these colleges, will succeed in stimulating and toning up undergraduate education at those colleges, which it would be otherwise difficult, if not impossible to achieve.

(9.30) We have already indicated earlier, the staff that will be required for the above departments in the Gujarat College after re-organisation. For the posts of Professors and Readers, persons having qualifications laid down in Part I (*vide* para. 3.19), should be appointed. This would not be impossible since we have already stated earlier that for higher appointments, liberal age limits should apply. In addition to the increase in expenditure on account of additional staff, Government will have to incur recurring and non-recurring expenditure for the building and equipment for these Departments. All this will ultimately be an asset to the University and will amount to so much financial assistance given to the University by Government. We strongly recommend, therefore, that the Gujarat College be re-organised on the basis indicated by us. The Professor appointed as Principal of the College should be a person particularly eminent in his subject and with ability to shoulder the large responsibilities of administration and co-ordination with the University. We sincerely hope that Government will consider our suggestion for what it is worth and take the necessary action as early as possible. Such action when taken, should be made known to the University and the authorities of the University informed that it will not be necessary for them to open any of the Departments for which facilities are provided at this College. We are not giving detailed estimates of the financial requirements for up-grading the college as these estimates can be obtained by Government departmentally.

(9.31) If Government agree to up-grade Government Colleges as suggested by us, it will be necessary to inform the Central Government that the State Government are providing post-graduate teaching and research facilities to the Universities concerned directly and claim through the University, the recurring and non-recurring grants that the University Grants Commission, the Ministry of Education or the Council of Scientific and Industrial Research, may pay to the Universities in the normal course.

#### GENERAL.

(9.32) In the absence of a detailed scheme by the University, we have tried to estimate the University's future requirements as best as we could. We have provided for the development of all the basic subjects either at the University or at the Gujarat College. We have, however, not taken into consideration any specific needs of the University in respect of Faculties other than Arts and Science. We would like to suggest, however, that in view of the fact that there are more than one colleges of Commerce affiliated to the Gujarat University, the University would perhaps feel the need, in due course, of having a University Department of Commerce specialising in certain branches which are of special significance to the city of Ahmedabad and the region the University serves. We do not visualize the need for the University to establish any Department of its own in the Faculties of Technology including Engineering, Agriculture and Medicine, at least during the next five years.

(9.33) The list of posts filled by the Gujarat University since 18th September 1952 is attached at the end of this Chapter as Appendix (d) (*vide* para. 7.40).

#### ACKNOWLEDGEMENT.

(9.34) We are grateful to Shri H. V. Divatia, Vice-Chancellor of the University, Dr. K. G. Naik, Professor A. K. Trivedi and Dr. M. D. Patel for the very useful discussion we had with them about the different matters pertaining to the Gujarat University. We visited the B. J. Institute of Learning and Research, the Vadilal Sarabhai Hospital, the B. J. Medical College, the Physical Research Laboratory, the Ahmedabad Textile Industries Research Association Laboratories, the Gujarat College and the L. D. Engineering College. We are thankful to Professor R. C. Parikh, Dr. K. Ramnathan, Shri Vikram Sarabhai, Dr. C. D. Barve, Dr. M. D. Desai and Principal M. S. Shah for the facilities they gave us for our visit and for the discussions we had with them.

## APPENDIX (c) TO CHAPTER IX.

*Gujarat University.*

No. Actt. 52702 of 1953.  
Office of the Gujarat University,  
Ahmedabad, 2nd December 1953.

To

THE SECRETARY TO THE GOVERNMENT OF BOMBAY,  
Education Department, Bombay.

*Subject.*—Grant-in-aid to during the year 1954-55.

Sir,

In order to make a start to give effective Post-graduate teaching it has been decided to start the following two departments from June 1954 :—

- (1) School of Social Science.
- (2) School of Gujarati Language and Literature.

The Senate at its meeting held on 3rd/4th September 1953, sanctioned the scheme for this and the estimated expenditure over these two Departments during the next year, i.e., 1954-55 will be Rs. 95,000 excluding library equipments, furniture and fixture, etc. (details are given herewith). I have, therefore, to request you to give your concurrence for the purpose of the grant to start these Departments from June, 1954 as required by your letter No. USG. 1152-U of 18th September 1952.

I may state that the scheme was sanctioned by the Senate in September, 1953 but the Syndicate in its Meeting held on 14th November 1953 decided to open these Departments from June, 1954 and, therefore, it was not possible to move Government for its concurrence before September of this year. The delay in requesting for concurrence, it is requested, may please be condoned.

Yours faithfully,

(Signed) .....,  
Registrar.

*Gujarat University.*

No. Actt. 52703 of 1953.  
Office of the Gujarat University,  
Ahmedabad, 2nd December 1953.

To

THE SECRETARY TO THE GOVERNMENT OF BOMBAY,  
Education Department, Bombay.

*Subject.*—Recurring grant during the year 1954-55.

Sir,

The Senate of this University at its Meeting held on 3rd/4th September 1953, decided to start the following two Post-graduate teaching Departments from June, 1954 :—

- (1) School of Social Sciences.
- (2) School of Gujarati Languages and Literature.

These two Departments will involve an annual recurring expenditure of Rs. 95,000 excluding Library equipments, furnitures, fixtures, etc., in the first year (details of which are given herewith).

I have, therefore, to request you to increase the annual recurring grant for the year 1954-55 from Rs. 4,00,000 to Rs. 5,00,000 to enable the University to start these Departments from June, 1954.

Yours faithfully,

(Signed) .....,  
Registrar.

**GUJARAT UNIVERSITY.**  
*University School of Social Sciences.*

	Grade.	Annual pay.	D. A., H. R. A., etc., per month.	Annual D. A., H. R. A., etc.
	Rs.	Rs.	Rs.	Rs.
1. Professor of Economics (Rs. 100 as allowance for acting as Director of the School).	800—50—1,250	10,800	160	1,920
2. Reader in Economics ..	400—30—700	4,800	100	1,200
3. Professor of Statistics ..	800—50—1,250	9,800	160	1,920
4. Lecturer in Statistics ..	250—25—500	3,000	85	1,020
5. Reader in Politics ..	400—30—700	4,800	100	1,200
6. Reader in Sociology ..	400—30—700	4,800	100	1,200
7. Reader in Anthropology ..	400—30—700	4,800	100	1,200
8. Reader in Industrial Psychology.	250—25—500	3,000	85	1,020
9. Assistant Librarian ..	200—20—400	2,400	80	960
10. Head Clerk ..	150—10—200	1,800	75	900
11. Two clerks (one Typist) ..	55—130 Starting Rs. 70. do.	840	60	720
12. One Stenographer ..	200—225	1,800	75	900
13. Four peons ..	30—1/2—35 (and so far four peons, the pay would be Rs. 120 per mensem, i.e., Rs. 360 per each peon per year).	1,440	180	2,160
		54,720	.....	17,040
Pay ..	Rs. 54,720			
Plus D. A., H. R. A., etc. ..	17,040			
	71,760			



## GUJARAT UNIVERSITY.

*University School of Gujarati Language and Literature.*

	Grade.	Annual Pay.	D. A., H. R. A., etc. p. m.	Annual D. A., H.R.A., etc.
		Rs.	Rs.	Rs.
1. Professor of Gujarati Language and Literature —Director. (No allowance for the work as Director)	.. 800—50—1,250 ..	9,600	160	1,920
2. Research Fellows (2)	.. 75—15—150 ..	1,800	60 (to each).	1,440
		11,400	....	3,360

	Rs.
Pay ..	11,400
Plus D. A., H. R. A., etc. ..	3,360
Plus Office Staff (and other contingencies) ..	8,480

---

23,240

---

*Summary of Expenditure for the two proposed Departments.*

			Rs.
School of Social Sciences	..	..	71,760
School of Gujarati Language and Literature	..	..	23,240
		Total ..	<u>95,000</u>

APPENDIX (d) TO CHAPTER IX—GUJARAT UNIVERSITY.

*The Number of Posts created by the University before 18th September 1952, but filled after 18th September 1952.*

Department.	Number of posts created.	Designation of the post.	Date of creation quoting Syndical Resolution No.	Date of filling of the post.	Pay and allowances with scale.	Expenditure upto 31st March 1953.	Expenditure from 1st April 1953 to 31st March 1954.	Total of No. 7 and 8.
1	2	3	4	5	6	7	8	9
						Rs. a. p.	Rs. a. p.	Rs. a. p.
Office of the Registrar.	1	Typist	-- Item 5, dated 2nd February 1952.	4th December 1953.	55-3-85-4-125-5-130 and dearness allowance according to Government rules and Rs. 5 cycle allowance.	....	503 8 0	503 8 0
	1	Peon	-- Item 2, dated 8th/9th December 1950.	15th January 1953.	30-1-35 and dearness allowance according to Government rules and Rs. 5 cycle allowance.	209 0 0	964 8 0	1,173 8 0
	1	Peon	-- Do.	-- 15th January 1953.	30-1-35 and dearness allowance according to Government rules and Rs. 5 cycle allowance.	211 10 0	963 2 0	1,174 12 0
	1	Stenographer	-- Do.	-- Not filled	--	100-5-125-6-155-E.B.-6-185-8-225 and dearness allowance according to Government rules and Rs. 5 cycle allowance.	....	....
Library Department	2	Do.	-- Item 32, dated 4th August 1951.	Do.	-- Do.	....	....	....
	1	Peon	-- Item 43, dated April 1952.	5th 22nd September 1952.	30-1-35 and dearness allowance according to Government rules and Rs. 5 cycle allowance.	493 15 0	934 9 0	1,427 8 0

Office of the Chief Medical Officer.	1	Chief Medical Officer.	Item 1, dated 5th April 1952.	4th December 1952.	*400-25-600-E.B.—30-900 and dearness allowance according to Government rules and Rs. 5 cycle allowance.	2,261 10 0	7,403 11 0	9,665 5 0
	1	Junior clerk	Do.	15th January 1953.	55-3-85-4-125-5-130 and dearness allowance according to Government rules and Rs. 5 cycle allowance.	328 13 0	1,547 4 0	1,876 1 0
	1	Typist	Do.	Not filled	Do.	....	....	....
	1	Peon	Do.	16th January 1952	30-1-35 and dearness allowance according to Government rules and Rs. 5 cycle allowance.	201 5 0	907 1 0	1,108 6 0
Office of the Director of Physical Education.	1	Typist	Do.	Not filled	55-3-85-4-125-5-130 and dearness allowance according to Government rules and Rs. 5 cycle allowance.	....	....	....
	1	Peon	Do.	Do.	30-1-35 and dearness allowance according to Government rules and Rs. 5 cycle allowance	....	....	....
<i>The Number of Posts created in the University after 18th September 1952 and filled in after 18th September 1952.</i>								
Office of the Registrar.	2	Junior Clerks	Item 122, dated 14th November 1953.	4th December 1953.	55-3-85-4-125-5-130 and dearness allowance according to Government rules and Rs. 5 cycle allowance.	....	526 15 0	526 15 0
	1	Do.	Do.	5th December 1953.	Do.	....	499 6 0	499 6 0
	1	Junior Clerk (temporary for one year).	Item 35, dated 26th June 1953.	12th December 1953.	Do.	....	492 3 0	492 3 0

\* Cycle allowance is given to those who are drawing basic pay Rs. 150 or less, Rs. 30 is given as house rent allowance to Chief Medical Officer (consolidated) as per Item No. 23, dated 5th December 1953, of the Syndicate.

Department.	Number of posts created.	Designation of the post.	Date of creation quoting Syndicate Resolution No.	Date of filling of the post.	Pay and allowances with scale.	Expenditure upto 31st March 1953.	Expenditure from 1st April 1953 to 31st March 1954.	Total of No. 7 and 8.
1	2	3	4	5	6	7	8	9
						Rs. a. p.	Rs. a. p.	Rs. a. p.
Library Department.	1	Typist	.. Item 190, dated 21st/22nd November 1952.	16th January 1953.	55-3-85-4-125-5-130 and dearness allowance according to Government rules and Rs. 5 cycle allowance.	301 15 0	1,447 9 0	1,749 8 0
	1	Junior Clerk	.. Item 40, dated 5th September 1953 (Temp.).	21st December 1953 to 5th May 1954.	Do.	....	452 14 0	452 14 0
	1	Issue Clerk	.. Item 89, dated 7th February 1953.	1st June 1954 ..	Do.	....	....	....
	1	Senior Clerk	.. Do.	.. Do.	.. 100-8-140 and dearness allowance according to Government rules and Rs. 5 cycle allowance.	....	....	....
	1	Stock room attendant.	Do.	.. Not filled	.. 30-1-35 and dearness allowance according to Government rules and Rs. 5 cycle allowance.	....	....	....
	1	Hamal	.. Do.	.. 16th March 1954.	Do.	....	41 5 0	41 5 0
	2	Peons	.. Item 77, dated 10th January 1954.	Not filled	Do.	....	....	....

Building Erection ..	1	Building Supervisor.	Item 40, dated 5th September 1953.	11th January 1953.	200 (consolidated)	535 8 0	2,400 0 0	2,935 8 0
University School of Languages and Literature.	1	Prof. of Gujarati Language and Literature, i.e., Director.	Item 13, dated 1st August 1953.	Not filled	.. 800—50—1,250, and dearness allowance according to Government rules and Rs. 5 cycle allowance.	....	....	....
	2	Research Fellows.	Do.	Do.	.. 75—15—150, and dearness allowance according to Government rules and Rs. 5 cycle allowance.	....	....	....
University School of Social Sciences.	1	Prof. of Economics, i.e., Director.	Item 13, dated 1st August 1953.	1st June 1954	.. 800—50—1,250, and dearness allowance according to Government rules and Rs. 5 cycle allowance and Rs. 100 allowance.	....	....	....
	1	Reader in Economics.	Do.	.. Not filled	.. 400—30—700, and dearness allowance according to Government rules and Rs. 5 cycle allowance.	....	....	....
	1	Prof. of Statistics.	Do.	.. Do.	.. 800—50—1,250, and dearness allowance according to Government rules and Rs. 5 cycle allowance.	....	....	....
	1	Lecturer in Statistics.	Do.	.. Do.	.. 250—25—500, and dearness allowance according to Government rules and Rs. 5 cycle allowance.	....	....	....
	1	Reader in Politics.	Do.	.. Do.	.. 400—30—700, and dearness allowance according to Government rules and Rs. 5 cycle allowance.	....	....	....
	1	Reader in Sociology.	Do.	.. Do.	.. Do.	....	....	....
	1	Reader in Sociology (Anthropology).	Do.	.. Do.	.. Do.	....	....	....

Department.	Number of posts created.	Designation of the post.	Date of creation quoting Syndicate Resolution No.	Date of filling of the post.	Pay and allowances with scale.	Expenditure up to 31st March 1953.	Expenditure from 1st Apr. 1953 to 31st March 1954.	Total of Nos. 7 and 8.
1	2	3	4	5	6	7	8	9
						Rs. a. p.	Rs. a. p.	Rs. a. p.
University School of Social Sciences— <i>contd.</i>	1	Lecturer in Sociology (Industrial Psychology).	Item 13, dated 1st August 1953.	Not filled	.. 250—25—500, and dearness allowance according to Government rules and Rs. 5 cycle allowance.	....	....	....
	1	Assistant/ Librarian.	Do.	.. Do.	.. 200—20—400, and dearness allowance according to Government rules and Rs. 5 cycle allowance.	....	....	....
	1	Head Clerk ..	Do.	.. Do.	.. 150—10—200, and dearness allowance according to Government rules and Rs. 5 cycle allowance.	.....	.....	.....
	1	Junior Clerk ..	Do.	.. Do.	.. 55—3—85—4—125—5—130, and dearness allowance according to Government rules and Rs. 5 cycle allowance.	....	....	....
	1	Typist ..	Do.	.. Do.	.. Do.	....	....	....
	1	Stenographer ..	Do.	.. Do.	.. 100—5—125—6—155—E.B.—6—185—8—225, and dearness allowance according to Government rules and Rs. 5 cycle allowance.	....	....	....
	4	Peons ..	Do.	.. Do.	.. 30— $\frac{1}{2}$ —35, and dearness allowance according to Government rules and Rs. 5 cycle allowance.	....	....	....

## CHAPTER X

## S. N. D. T. WOMEN'S UNIVERSITY.

(10.1) The S. N. D. T. Women's University came into existence by Bombay Act No. LI of 1949 and was incorporated on 13th January 1951. The medium of instruction in the University has been the mother-tongue from the very outset. This University has jurisdiction all over the State and is open only to women students. Before the University became a statutory one, it used to conduct its own Entrance Examination. Under the S. N. D. T. University Act, admission to the University is now open to all women students who have passed the S. S. C. Examination conducted by the S. S. C. Examination Board or its equivalent, in such subjects and with such standards of attainment as are prescribed by the Statutes. The University Act is framed in a rather different manner due to the special requirements of this University. The Senate, the Syndicate, the Faculties and the Boards of Studies are the authorities of the University besides any others which may be declared as such, by Statutes. There is thus no academic Council and no Board of University Teaching. The Act provides for the University to conduct instruction, teaching and training beyond the stage of the Entrance Examination and all post-graduate instruction, teaching and training in institutions or colleges recognised by, affiliated to, or conducted by the University. Such instruction, teaching and training is to be imparted by the teachers of the University, *i.e.*, by teachers appointed or recognised by the University for imparting instruction on its behalf. The Act provides for framing Statutes, laying down qualifications of professors, readers, lecturers and teachers in affiliated colleges and recognised institutions and their conditions of service. The University authorities have not framed any Statutes under section 22 (*viii*) of the Act. They have, however, framed ordinances under section 24 (*5*) of the Act for recognition of teachers of the University and these Ordinances are apparently used for the purpose laid down in section 22 (*viii*). This appears to be irregular and the University may be advised to take in hand the framing of the relevant Statutes at an early date. The Act specifically provides for external students by empowering the University to exempt students from following approved courses of study, in the University, or in affiliated colleges. Thus the University can and does grant diplomas to those not enrolled as regular students of the University. This is a concession deliberately given to women students in view of the general disabilities to which women are subject, and only continues the concession enjoyed by them before the University became a statutory one.

(10.2) The University conducts two colleges for Women—one at Bombay and one at Poona. These colleges teach subjects included in the Faculty of Arts and also subjects for the B.T. degree. In addition, there are four affiliated colleges at Ahmedabad, Baroda, Bhavnagar and Surat. Of these, the colleges at Ahmedabad and Baroda provide for teaching for the B.T. degree, in addition to the usual Arts subjects. Since the incorporation of the University, besides the arrangements made for instruction for the degree in Teaching, the University has started a Nursing College at Bombay. The Nursing College offers a three-year course leading to the degree of B.Sc. (Nursing), and proposes to provide a specialised one-year course in certain special branches. The course has been recently instituted and the first degree examination in Nursing will be held in 1955. The University therefore, desire to complete the arrangements for provision of courses in Nursing for the 3rd and 4th years. The provision of such a course by the University is quite

appropriate. We would suggest, however, that the University may be requested to get their courses recognised as equivalent to similar courses in other Universities so as to ensure maintenance of adequate standards of training befitting a University.

(10.3) The special feature of this University is that it offers various courses of study through the regional languages, viz., Marathi and Gujarati and also through Sindhi, Hindi and Urdu. Thus this University has inherited the tradition of teaching courses of study through the mother-tongue of the pupils. Different subjects under the Faculty of Arts comprise, besides the languages mentioned, Indian Administration, Domestic Science, Sanskrit, Drawing, Music, History, Geography, Sociology, Psychology and Economics. As most of these subjects are offered through more than one language, the number of students for certain subjects and certain languages are bound to be small, e.g., there are very few Sindhi students on the whole and there are comparatively few students doing the subjects of Sanskrit, Drawing, Music and Geography in Marathi or Gujarati. The subjects which are most popular for the B.A. degree appear to be Sociology and Psychology. Surprisingly enough, the other subjects which should be more suitable for women, viz., Drawing and Music do not seem to be sufficiently popular. This may be due to the fact that the University has not been able to provide adequate facilities for the teaching of these subjects. It would be useful for the University to devise ways and means to popularise subjects specially suited to the needs of women. Otherwise, there would be no special justification for the existence of a separate University for Women. The number of post-graduate students in Arts, *i.e.*, those reading for the degree of M.A. is also rather small. The total number of students who appeared for the M.A. Examination in 1954 was only 32 spread over eight subjects. Of these 32, there were only two students for Music in Marathi and only one student for Music in Gujarati. The B.T. course seems to be fairly popular, the total number of students who appeared for this examination in 1954 being 131. The University has recently started a 3 year course in Nursing leading up to the degree of B.Sc. (Nursing). This course is conducted through English. There were 12 students in the second year of this course in 1953-54.

(10.4) Another rather unusual feature of this University is that it runs two High Schools, one at Bombay and one at Poona. As these High Schools are included in the schedule below the Act, there is a statutory obligation on the University to run the two High Schools.

(10.5) The University has submitted to the Government of India a Five Year Plan of Development in which although it is not clear on what basis the recurring and non-recurring amounts have been calculated, the University has given its requirements briefly as follows :—

- (1) Establishment of an Institution for Home Science including House Craft ;
- (2) Establishment of a Library for the use of the University students, and the graduates of the University as well as for the educated women in the city ;
- (3) A Laboratory and a Library for Advanced Nursing students ;
- (4) Equipment for research and recurring provision for Social Sciences ;
- (5) Establishment of the Faculty of Fine Arts.



Besides these, the University has planned to have for each of its colleges in Bombay and Poona covered gymnasia, badminton courts and a research laboratory for the students of Psychology and library and general equipment for the Colleges of teaching.

(10.6) Before an attempt is made to formulate a basis for assessment of grant to this University, it is necessary to give some idea of the manner in which instruction is imparted in the colleges conducted by or affiliated to the University. The present arrangements are that instruction is imparted largely by part-time teachers with the assistance of a nucleus of full-time staff. The qualifications and experience possessed by these teachers are not comparable in a number of cases with the corresponding requirements in the other Regional Universities. This, coupled with the fact that the number of text books in languages other than English is strictly limited and not above a certain standard, makes it necessary for most of the students to consult books written in English. In view of the fact that there are a large number of part-time teachers, it is obvious that adequate and effective provision for tutorials is out of question. It seems to us, therefore that this University deserves financial encouragement to enable it to recruit a sufficient number of full-time and well-qualified teachers in the colleges conducted by it so as to raise the level of teaching in those colleges to a standard comparable with that obtaining in the other regional Universities. It is also necessary that the colleges affiliated to this University be required to improve its staff and have a sufficient number of full-time teachers for imparting instruction to its students. In fact, as the colleges affiliated to the University are also receiving grant-in-aid from Government, this will involve higher grants to these institutions. They should also develop their own resources to improve their staff. The University should insist on sufficient and adequately qualified staff before affiliation or continuation of affiliation is recommended.

(10.7) The second important step on the part of the University would be to improve instruction at the undergraduate level by organising teaching and tutorials on the lines indicated by us in Part I of this Report. Whereas the establishment of a College of Home Science including House-craft would be very desirable for the University, we feel that it would be better for the University first to consolidate and upgrade the existing under-graduate teaching facilities provided by it before a new college is opened. For the present we recommend that the University be advised to bend all its energies to the task indicated above by holding in abeyance, for the time being, all post-graduate teaching. It is obvious that unless undergraduate education is put on a sound basis, it is not possible to do justice to post-graduate courses. We feel, however, that after some time, the University will require assistance for institution of post-graduate Departments specially suitable for the needs of women, as indicated in the plan submitted by them to the Government of India.

(10.8) Due to the paucity of numbers both for the B.T. and M.A. courses at Poona, we discussed with the University Representatives the desirability of stopping instruction for the B.T. and M.A. degrees at Poona. The University are of the view that in spite of the small numbers the B.T. courses serve the useful purpose of providing trained women secondary teachers for the State and, therefore, this facility should be continued at Poona. For the M.A. courses, the University contend that the courses are not provided for all voluntary subjects for the sake of economy and, therefore, it would not be desirable to reduce any of the existing facilities for this degree at Poona. While we agree that provision for the B.T.

degree may be continued at Poona, it is not essential that the M.A. courses should be continued by the University at Poona. It is open to a student to read for M.A. at Bombay. If necessary, deserving students from Poona may be given scholarships by the S. N. D. T. University for studying for M.A. at Bombay.

(10.9) Another question discussed with the representatives of the University was whether it would be possible to cut down the expenditure on the Kanya Shalas by limiting the range of subjects. The University have replied by saying that the Syndicate appreciates the idea underlying this query but is of the opinion that unless a certain minimum number of voluntaries are taught at the Kanyashalas, they would not attract a large number of students. Under the terms of the consent decree, the University is under an obligation to pay a grant of Rs. 5,000 to the Vanita Vishram for conducting the Vanita Vishram Girls' English High School, although this High School does not prepare candidates for the S. N. D. T. University. As these Kanya Shalas are being conducted under the obligation of the Consent Decree as provided by the University Act, it seems that the expenditure on them is unavoidable. It was suggested to the University that instruction may be restricted to Marathi, Gujarati and Hindi as media of instruction. The Syndicate replied that they were in favour of continuing Hindi in addition to Marathi and Gujarati and that as the Sindhi side had not developed as expected, it was being discontinued gradually.

(10.10) The University require a hall for building up a library containing mostly books in Marathi, Gujarati and Hindi on various subjects. The recommendations for a grant for this purpose are included in our calculations set out later in this Chapter. As has been remarked earlier, the students of this University have to consult books written in English in their respective subjects. For this purpose, the libraries of the other State Universities and their affiliated colleges are available to such students, as reside in the respective towns. The University has, therefore, no need to build up an elaborate library of books written in English. If there is a change in the medium of instruction at any of the other regional Universities, it would be possible for students of the S. N. D. T. University to take advantage of the lectures arranged and the library facilities provided by such a University wherever possible. We feel, therefore, that the S. N. D. T. University would do well to build up its own library principally in Marathi, Gujarati and Hindi without spending large amounts on a number of books written in English which are available in the other libraries in Bombay.

#### ASSESSMENT OF GRANT.

(10.11) The budget estimates for the year 1953-54 show a deficit of over Rs. 37,000. It may be remarked that the interest from the Thackersey Fund received annually is Rs. 45,000. The total deficit on account of the two Kanya Shalas at Bombay and Poona is estimated at Rs. 35,000, even after the usual Government grants totalling about Rs. 38,000 to these schools are taken into consideration. This will show that of the income of Rs. 45,000 on account of interest from the Thackersey Fund the University has under the agreement to meet a deficit of Rs. 35,000 for the two Kanya Shalas and pay Rs. 5,000 to the Vanita Vishram, leaving a balance of only Rs. 5,000 for all the other activities of the University. This means that the activities of the University proper will have to be all financed practically by the State Government. As these Kanya Shalas have to be run by the University to which the State Government pays a grant, we feel that Government need not pay the usual grant-in-aid to these two schools directly. The University accounts will then show clearly the loss sustained by the University on these two Kanya Shalas and which is made good from the grant paid to the University by Government.

(10.12) Amongst the immediate needs of the University may be included the following items asked for by the University :—

*III Year Course in Nursing.*

Recurring.	Non-recurring.
Rs. 11,000 Pay of Staff and contingencies.	Rs. 15,000 Furniture, Laboratory and Library for Nursing.

*IV Year Course in Nursing.*

Rs. 15,000 Pay of Staff and Contingencies.	Rs. 15,000 Furniture, Laboratory and Library for Nursing.
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(10.13) In recommending the grant for the next two years, we are taking into consideration the requirements of the University for the course in Nursing which has already been started, but we are not taking into account the General Development Scheme submitted by the University to the Government of India, for we feel that the scheme submitted is not sufficiently specific and also it seems desirable to undertake expansion and provision of extra facilities in the University after a year or two when the University will have improved the undergraduate teaching facilities in the existing institutions and organized itself sufficiently to make effective provision for instruction in its affiliated colleges also. The University has also asked for a grant of nearly 5.75 lacs non-recurring and Rs. 12,000 recurring for the General University Library. We feel that the State Government may recommend to the Government of India that the development scheme of this University be considered sympathetically and at least the non-recurring grant asked for by it for its Library building be sanctioned immediately. For recurring expenditure on the library, we propose to include Rs. 6,000 per annum as asked for by the University in its five year plan, for the next two years. Last year the University was paid a grant of Rs. 75,000 plus Rs. 40,000 later and hence the estimated deficit of Rs. 37,000 during 1953-54 will be wiped out. Therefore, the grant to be paid during 1954-55 should be about Rs. 1.1 lacs. (Rs. 75,000 plus Rs. 35,000). To this may be added the recurring and non-recurring grant required for Nursing, amounting to about Rs. 26,000 for the third year and Rs. 30,000 for the fourth year during 1955-56. An addition of Rs. 6,000 will have to be made for the recurring expenditure of the University Library as stated above. The grant payable during the next two years would, therefore, be as follows :—

	Recurring.	Non-recurring.	Total.
1954-55	1.27	15	1.42
1955-56	1.45	15	1.60

The additional recurring grant of Rs. 15,000 and the non-recurring grant of Rs. 15,000 for the fourth year course in Nursing should be paid only after the University has submitted details of the proposed fourth year course to Government and the same has been duly approved. An amount of Rs. 3,000 is allowed as the normal increase during 1955-56 and is included in the figures for 1955-56.

(10.14) We have not included in the above figures the extra expenditure the University may have to incur on appointment of sufficiently qualified full-time staff as recommended by us earlier, along with a general toning up of undergraduate teaching by insistence on organised tutorials and provision of adequate library facilities. We suggest that the University work out a separate scheme for this purpose so that the State Government may consider increasing the recurring grant suitably with effect from 1956-57. It will be necessary to review the organization of the University after five years in order to estimate its requirements during 1959-60. We visualise the establishment of a College of Home Science including Housecraft and a Faculty of Fine Arts, but it is not necessary for us to estimate the University's requirements under these two heads at present, as we are of the opinion that the University should not undertake any new responsibilities before raising the level of instruction in existing institutions.

(10.15) The list of posts filled by the S. N. D. T. Women's University, Bombay since 18th September 1952 is attached at the end of this Chapter as Appendix (8) (*vide* 7.40 earlier).

#### ACKNOWLEDGMENT.

(10.16) Our thanks are due to Shri K. C. Desai and Shri P. G. Shah who met us on behalf of the University and explained to us the points raised by us at the time of the discussion. We also thank the Registrar for the readiness with which she supplied all possible information required by the Committee.

## APPENDIX (e) TO CHAPTER X.

*S. N. D. T. Women's University, Bombay.*

Designation of Post.	Date of creation quoting reference to Resolution of the Authority concerned.	Date of filling of the post.	Pay and Allowances with scale.	Expenditure up to 31st March 1953, 1st April 1953 to 31st March 1954		Total Expenditure.
				Expenditure from.	Expenditure.	
			Rs.	Rs. s. p.	Rs. s. p.	Rs. s. p.
Steng	The old incumbent had left and hence the post is again filled up from 8th December 1952.	8th December 1952.	Pay 120 Scale. D.A. 20 D.A. 50 Rs. 120-8- 200-10-250.	527 1 6	2,250 10 3	2,777 11 9
Hamal	A new post Syndi. Resolution XVII of 22nd September 1952.	1st October 1952	60 Fixed.	300 0 0	706 0 0	1,006 0 0

## CHAPTER XI.

## M. S. UNIVERSITY OF BARODA.

(11.1) The idea of establishing a University at Baroda was originally conceived by His Late Highness Sir Sayajirao, the Maharaja of Baroda, nearly 45 years back. Various Committees and Commissions worked on this question till finally a Committee was appointed in 1947 under the Chairmanship of Shri K. M. Munshi to consider the question of early establishment of a University at Baroda. This Committee submitted its report in 1948. Events moved swiftly thereafter and the M. S. University of Baroda was established by Baroda Act No. XVII of 1949 and started functioning on 30th April 1949. This Act was subsequently adapted and modified by the adaptation of laws order of 1950 and further amended in 1950, 1951 and 1954.

(11.2) The State of Baroda was known for years for its progressive views on educational development. It was a pioneer in the field of compulsory primary education. The Kalabhavan was considered as one of the best institutions giving practical training in Applied Sciences. The study and development of Sanskrit language and literature received due encouragement and the contributions of the Baroda Oriental Institute in the form of the Gaikwar's Oriental Series have been well-known. In the sphere of liberal education the college at Baroda provided good facilities at low cost for students desiring to pursue courses of studies leading to the degrees of B.A., M.A., B.Sc. and M.Sc. Having realised the need for teachers with proper training in the secondary schools in the State of Baroda, a Teachers' Training College was started. Higher Education in the field of Commerce was imparted by the Pratapsinh College of Commerce. Facilities were provided for the study of Fine Arts and the Sciences of interest to women. The need for trained social workers in the field of social uplift not only in the villages but also in cities had been foreseen and provision was made for training social workers. There was thus a wide field of activities in education in almost all directions. In addition, Baroda had been known for its cosmopolitan approach to all problems facing the State. There were within such institutions and outside, on the posts available, men drawn from all parts of India. In addition, admissions to these institutions were never exclusively confined to residents of the State of Baroda. We shall, therefore, examine the specific needs of this University, on the basis of the general background suitable to a cosmopolitan University and not confine ourselves to the limited sphere of a specific regional University.

## THE UNIVERSITY, ITS CONSTITUTION AND ITS FACULTIES.

(11.3) The University of Baroda was constituted on the basis of an Act of the Baroda State Government prior to the merger of the State with the State of Bombay. Consequently this Act did not have anything which was even basically common with the Acts of Incorporation of the other Regional Universities in this State. Its jurisdiction was limited to an area within a radius of ten miles from the offices of the University. On the day of its incorporation it took over directly under its control several institutions run by the Baroda State Government. Thus the Arts and Science College, Baroda, the College of Commerce, the Secondary Teachers Training College, the Kalabhavan Technical Institute and the Engineering College, the Oriental Institute and the Sanskrit Mahavidyalaya, which were run by the Baroda Government became the responsibility of this new University of Baroda. A natural consequence of this was the taking over by the Baroda University of the

liabilities and commitments of the then Government of Baroda. The Baroda University thus stood committed to payment of salaries and allowances to the old employees of the Baroda State who became servants of the University under section 70 of the Act. The buildings provided for these several institutions became the property of the Baroda University, and the responsibility for the upkeep and maintenance of these buildings rested on the University. These financial commitments of the University have to be kept in mind while estimating the Government grant payable to it.

(11.4) The University of Baroda is the one University in this State which directly runs not only post-intermediate classes but also pre-intermediate classes in the different faculties. These classes were run by the old affiliated colleges in Baroda. When a University takes over the responsibility for running such classes, it has naturally to enforce minimum standards from a closer academic angle. Such a step leads to increased expenditure which is to that extent justified so long as it is within the University's normal resources.

(11.5) We have, therefore, to consider the running of every Department that existed in the different Government colleges up to the Intermediate, the Post-intermediate and the Post-graduate stages on the date of incorporation of this University, as largely justified. At the same time, if any of the facilities existing at the time of incorporation of the University were subsequently expanded by the provision of instruction in additional subjects in the old faculties or by the institution of new departments or degrees or diplomas, then the corresponding expenditure should be regarded as development expenditure and would be subject to scrutiny. Similarly, if any post-graduate or research facilities were added after April 1949, the corresponding expenditure also would need examination. On this basis, the provision made in the different faculties can be classified into two categories :—

(a) those provisions which existed prior to 30th April 1949 or those which had been finalised and approved on that date, like the provision for a full-fledged Engineering College providing courses of instruction for degrees in Civil, Mechanical and Electrical Engineering and

(b) new Departments created after this date or the expansion of the existing Departments beyond the stage at which they existed or were actually brought into existence on 30th April 1949.

As for the new Departments or expansion of existing departments under category (b) above, we shall examine each case, finding out its need having regard to similar facilities provided within the State itself and the specific needs, if any, of the City of Baroda. We should, however, like to add that even in so far as commitments of the old Baroda Government taken over by the University are concerned we have gone critically into needs of staff according to standards outlined by us in Part I of our Report, and where additions to the staff have been made and are not justified, we have not hesitated to report that a certain post or posts do not stand justified for the assessment of grant-in-aid.

(11.6) Another complication, the consequences of which need some clarification at the very outset is due to the different designations and scales of pay prevalent in the old Baroda Colleges and the absorption of such personnel in new grades and scales of pay sanctioned by the University. So far as this question is concerned, we have generally adopted the principles stated earlier in Chapter III. If absorption of staff existing in the colleges under the old Baroda Government had been carried out in the light of these principles, some of the higher posts existing at present would

have been found unnecessary. As this staff is, perhaps, already made permanent in their upgraded posts, the only remedy is to consider, the filling in of any post now falling vacant, in the light of the principles referred to above, so that such a post can either be downgraded or abolished. We recommend, therefore, that the University be requested not to fill any posts vacant on 31st March 1954 in the existing departments without applying the criterion regarding the work load of teachers in the whole faculty in the light of principles laid down in Part I of this Report. The University of Baroda has organized its teaching work through faculties and these are : Arts, Science, Education and Psychology, Commerce, Technology including Engineering, Fine Arts, Home Science and Social work. In addition, there is the Oriental Institute, the College of Indian Music and the Baroda Sanskrit Mahavidyalaya. Recently Intermediate Education in Arts and Commerce has been partly separated and a new college called the Intermediate College of Arts and Commerce has been constituted.

(11.7) The Oriental Institute has been made a constituent part of the M. S. University of Baroda by a recent amendment of the Act. It seems, however, possible to effect some economy in running this Institute by merging the department of Sanskrit with it. If this is done, the Head of the Sanskrit Department can conveniently work as Director of the Oriental Institute and the separate post of Director can be abolished after the present incumbent retires. It would then also be possible to apply the principles regarding work load and adequacy of staff laid down in Part I of this Report to the Oriental Institute, in so far as teaching activities are concerned.

(11.8) The Sanskrit Mahavidyalaya imparts instruction on traditional lines for 12 years leading to the degree of Acharya in Dharmashastra, Jyotishya, Sahitya and Vyakaran. This is not a post S. S. C. course and yet as this Mahavidyalaya is also made a constituent part of the University by a recent amendment of the Act, the University is under an obligation to run it. No tuition fees are charged. There is provision for 12 stipends each, of the value of Rs.15 per month for both "Shastri" and "Acharya" courses. Free hostel accommodation is also provided to the pupils studying in this institution. It may be remarked that the degrees of "Shastri" and "Acharya" are not included in Statute 162 of the University, which lays down the degrees and diplomas awarded by the University.

(11.9) The College of Indian Music, Dance and Dramatics offers subjects of wide interests, which are not confined entirely to giving instruction for courses of study leading to a University degree. Students, who have not qualified for a Matriculation or the S.S.C. Examination certificate are also enrolled in this institution for study. This College has also been made a constituent unit of the University by a recent amendment of the Act. It may be remarked here that provision for instruction in the Sanskrit Mahavidyalaya and in the College of Indian Music, Dance and Dramatics appears to have been made under section 4 (5) of the Baroda University Act.

(11.10) There is a Department of Museology where instruction is being given in the subject of Museology by persons whose services are made available on a part-time basis. Institutions of such a character cannot work under the rigour and discipline that is planned for similar institutions in the University itself and however genuine the efforts may be, the work and its quality can never compare with the work and quality in a regular full-time institution. We, therefore, feel that it is desirable and it will be proper to hold this scheme in abeyance till it becomes possible for a proper full-time scheme to be worked out.



(11.11) One of the requirements of the Baroda University Act is to constitute faculties of Fine Arts, Home Science and Social work. Further we understand that a sum of about Rs. 3,07,000 which the University derives from the Sayajirao Diamond Jubilee and Memorial Trust Fund, is understood to be meant for the running of these faculties. After taking into consideration the total income from this Fund and the fees derived from the students, we find that there is a net deficit. This deficit is likely to grow. While we hold the view that the development of such faculties is necessary, we feel that such a development can be rationalised and can continue in an organized manner when there is some check on the increase of expenditure. In the case of these faculties, however, it is not possible to apply the norms regarding work load, quality and size of the staff indicated in Part I. In fact, these faculties are so different and so recent that establishment of some form of a common yardstick will take some time to evolve. We feel, therefore, that these three faculties should be considered together in a general manner and the deficit on their account to be borne by the State Government should be subject to a ceiling. This limit to the deficit will in a way leave the faculties free to organize and consolidate according to their needs and the University will have to exercise proper scrutiny of its development expenditure since any deficit beyond the ceiling laid down by the State Government will have to be met by the University from its other resources.

(11.12) In the faculty of Technology, including Engineering, the authorities of the Baroda University are conducting Diploma and Certificate courses in several subjects. The Kalabhavan was running courses of study leading to such Diplomas and Certificates for many years and had established a good reputation for itself. This institution is now a constituent unit of the University. The University also runs a Technical High School. Thus besides the Engineering College, the University is under a statutory obligation to run the Kalabhavan and the Technological Institute.

(11.13) In the Faculty of Education and Psychology, the authorities of the University are running an Experimental High School at a fairly heavy deficit. The Experimental High School is not the normal activity of a University. We would like to point out that in none of the Universities in the State, the Teachers' Training Colleges are running Experimental High Schools. Therefore, if we justify the running of this institution by the University and recommend that all the deficit on this account be made good from State funds, it would tempt other Universities to follow suit. This would lead to heavier commitments by the State Government. We, therefore, recommend that apart from the normal departmental grant-in-aid for this institution in accordance with the existing rules, no further assistance be held admissible. Thus, the deficit of about Rs. 39,000 in the Faculty of Education and Psychology on this account is inadmissible in our scheme for the assessment of grant-in-aid to the University.

(11.14) The University of Baroda is running an Ayurvedic Research Unit for carrying out research in Ayurveda. So far as this unit is concerned, the income is from two sources, viz., a special State grant of Rs. 36,000 and interest amounting to Rs. 6,900 on a sum set apart for research in the subject. The expenditure on this head balances itself.

#### ADMINISTRATION AND EXAMINATIONS.

(11.15) We are considering separately the needs of the University for its normal administration, for meetings of authorities of the University, for the conduct of examinations and for consequential miscellaneous items of expenditure. We realise that this is a University with a comparatively smaller number of students and a large number of faculties, each catering for a wide range of subjects. Consequently,

we do not expect a large surplus on account of the conduct of examinations in this University. If fees charged for diploma and certificate examinations are lower than those charged by the Director of Technical Education, these fees may be suitably revised. Payment to examiners for these examinations should also be brought in line with that by the Director of Technical Education. There is also room for raising examination fees in the Faculties of Fine Arts, Home Science and Social work. We find that there is a significant omission in the provisions made by the University of Baroda. All other Universities realise Rs. 10 per candidate for the registration of students passing the first year Arts, Science and Commerce examinations out of a fee of Rs. 20 per student, collected by the colleges. It appears from the relevant ordinances that no fees are charged from candidates appearing for the first year examinations. We feel that an examination fee of Rs. 20 per candidate should be charged. This would yield an income of about Rs. 14,000. There is also room for economy in the administrative staff of the University. In the course of our examination of the administrative set up in the University, we have noticed that the authorities maintain an abnormally high class III staff. Thus, there are about 85 persons on the clerical staff, including Accountants, Head Clerks, Senior Clerks, Clerks and Stenographers, between the University office and Faculties taken together. Similarly, we find that there are over 100 persons employed as peons. For a University having about 3,000 students on its rolls, it appears to us that the staff of clerks and peons is high. We suggest that the authorities of the University may be asked to examine the question in detail with a view to effecting economy in expenditure on this account.

The budget estimates show an expenditure of about Rs. 5.04 lacs on Establishment, Examinations, Dead-Stock and Repairs, Information and Publicity, Travelling Allowances, Printing and Stationery, Physical Education, Maintenance of roads, buildings and gardens and Miscellaneous expenditure. Depreciation on buildings and dead-stock is excluded. As against this, there is an income of Rs. 1.66 lacs on account of examinations, other fees, publications, and interest on cash balances, leaving a deficit of Rs. 3.38 lacs. This deficit can be reduced by about Rs. 38,000 by raising examination fees (Rs. 10,000), saving on administrative staff (Rs. 14,000) and by charging first year fees (Rs. 14,000). Taking all these factors into account, we consider a grant of Rs. 3 lacs as quite adequate for this University for administration covering the items listed earlier.

(11.17) We now proceed to consider the teaching departments of the University and the reasonable grant-in-aid that would be necessary for meeting this responsibility of the University. Along with this question, we shall also consider the question of the library and students' halls.

#### TEACHING COMMITMENTS OF THE UNIVERSITY.

(11.18) The procedure we intend to follow in examining the teaching commitments of the University is to consider the income and expenditure shown in the budget estimates for 1953-54 in the different Faculties and constituent Institutions. While examining these estimates, suggestions will be made for reduction in expenditure including reduction in staff wherever necessary. The grant which becomes payable to meet the deficit under each Faculty will then be worked out.

#### INTERMEDIATE COLLEGE OF ARTS AND COMMERCE.

(11.19) The University of Baroda has partly separated the First Year students in Arts and Commerce into a separate unit and provided them with special instruction both by way of teaching and tutorials. There is a separate administrative

set up in the form of an Intermediate College for looking into the needs of these students. On the academic side, we feel that the additional provision that the authorities have made for teaching and tutorials at this level, is fully justified. The salaries of the teaching and tutorial staff are included in the Faculties of Arts and Commerce. We consider all these salaries as fully admissible for purposes of grant-in-aid.

Turning to the administrative expenditure of the Intermediate College, we have to make the following observations:—

(i) We do not think more than 2 clerks are necessary for looking into the needs of the Intermediate students. By a readjustment of the work of the clerical staff of the Arts Faculty, the Commerce Faculty and the Intermediate Arts and Commerce College, it should be possible to run all these three Institutions with the clerical staff of the Arts and Commerce Faculties and two clerks for the Intermediate College.

(ii) For the Intermediate College by itself, we do not think that more than 2 peons are necessary, as a large part of the work can be given over to the Class IV servants of the Arts and Commerce Faculties.

(iii) The contingency grant of the Arts and Commerce Faculties are adequate to meet the requirements of the Intermediate College, and, therefore, no separate provision of contingencies is necessary.

(iv) The library grant for the Arts and Commerce Faculties is adequate for meeting the requirements of books and periodicals of the intermediate students. Therefore, no additional provision for library grant for the Intermediate College is necessary.

In accordance with the general principle laid earlier, we disallow depreciation on buildings and dead-stock, as provided for in the Intermediate College budget.

We consider only the following items as admissible:—

- (a) Principal's Allowance.
- (b) Salaries of 2 Clerks.
- (c) Salaries of 2 Peons.
- (d) Scholarships and Fellowships.
- (e) Ordinary and special repairs and Insurance charges.

On this basis, we are of the view that the admissible expenditure on the Intermediate College should not exceed Rs. 9,000. A saving of Rs. 20,000 can be, thus, effected.

#### FACULTY OF ARTS.

(11.20) The total estimated expenditure under the Faculty of Arts is about Rs. 3.30 lacs. We have stated in the 1st Part of our Report that no depreciation should be held admissible on University buildings as these should be treated on the same lines as Government buildings. In view of this, the amount of depreciation on buildings, viz., Rs. 5,075 is deducted from the total expenditure. In addition, an amount of Rs. 34,450, which is the contribution from the income of Rs. 86,000 earned by the University on the sum of Rs. 28.92 lacs set apart for post-graduate instruction and research, is set off as income. Further, the income from tuition fees estimated at Rs. 1.16 lacs is taken into account. Thus, the net deficit works out at about Rs. 1.74 lacs on this Faculty. To this deficit may be added the excess

of the estimated expenditure on the Intermediate College over Rs. 20,000 saved, as shown in the previous paragraph. This brings the deficit to Rs. 1.83 lacs. We are suggesting below certain measures for reducing this deficit by about Rs. 30,000. As the University has made provision for a well-knit system of tutorials for the first and second year classes, it would be reasonable to transfer part of the burden of the consequent additional expenditure to the students. Increasing the fees for these classes by about Rs. 10 per term would not be considered unduly high and would bring in an income of about Rs. 7,000. Further, the fees charged for the B.A. classes, viz., Rs. 90 per term are rather low. When the University itself conducts post-intermediate teaching and provides a better standard of lectures and tutorials than in affiliated colleges, there is no reason why the fees should not be raised to Rs. 100 or even 110 per term, as prevailing in Poona. Similarly, fees for the M.A. and Ph.D. degrees charged by the University are also low and need to be raised to the level of similar fees charged by the Bombay or Poona University. As regards Post-graduate teaching, the number of students availing themselves of this facility in certain subjects, is rather low. Moreover we feel that if the provision of staff for post-graduate teaching and research is re-examined on the basis of the principles laid down in paragraph (3.36) above, the expenditure on this account is likely to go down. We recommend that post-graduate teaching be provided by the University only in the following subjects :—

- |                  |  |
|------------------|--|
| (1) Gujarati,    | (5) History and Politics as subsidiary |
| (2) Sociology,   | subjects, and                          |
| (3) Economics,   | (6) Sanskrit.                          |
| (4) Archaeology, |  |

We recommend that the post-graduate teaching in all other subjects be discontinued as soon as possible. It will be possible to retrench one post in each of the Departments, in which post-graduate teaching is thus discontinued, as the total post-graduate teaching load in the Department will be roughly equivalent to one teacher's work. On this basis, there is no justification for a Reader's post in History. Similarly, there is no justification for two Readers' posts in the English Department and we feel that one post of Reader and one post of Senior Lecturer in English can be abolished immediately. The number of students offering Pali, Persian or Urdu at the Post-intermediate stage should be closely watched and if the total number in any language falls below 10, it would be justifiable to discontinue instruction in that language.

(11.21) On the above basis, we feel that a grant of Rs. 1.53 lacs should adequately meet the deficit under the Faculty of Arts.

#### FACULTY OF SCIENCE.

(11.22) In the Faculty of Science the authorities have added to the provisions existing at the time of the establishment of the University by creating the Department of Geography and Geology. Further they have upgraded the Zoology Department by providing facilities up to the Post-graduate level. While we consider the upgrading of the Zoology Department justified, we cannot recommend that the State Government should commit itself to the institution of the Departments of Geography and Geology. We have recommended development of the department of Geology at the Karnatak University and that of a department of Geography at the Poona University. It would, therefore, be quite appropriate for the State Government not to consider duplication of these departments at Baroda. The existing staff in Geology may be retained for its present duties but no further

expansion of the departments need be financed by the State Government. The retrenchment of the post of Lecturer in Geography would result in a saving of about Rs. 6,000 per annum. The number of post-graduate students in Mathematics and Physics is small and hence we recommend that post-graduate teaching in these departments be discontinued. We have recommended a department of Mathematics both pure and applied at the Gujarat University. Hence there will be no need for this department at Baroda. We recommend the continuance of the Department of Statistics as it already exists here. No separate department of Statistics is, therefore, being recommended for the Gujarat University. We have already remarked that deserving students should be given scholarships by the University for the study of certain subjects at other Universities where the requisite facilities are available.

(11.23) For the Post-graduate students the fees charged, viz. Rs. 75 per term are low and should be raised to about Rs. 150 per term. The upgrading of the existing posts of Readers to Professorships does not appear to be an immediate necessity in most of the Departments, as the demand for Post-graduate Research appears to be low in all Departments, except the Department of Chemistry. We, therefore, do not recommend any additional staff in this Faculty, for the next five years, in departments other than Chemistry. In the Department of Chemistry, there is need for the post of a Professor and this post is being included in our calculations. In view of the above recommendations, the grant to meet the deficit in this Faculty works out at Rs. 1.9 lacs. This figure is arrived at by deducting from the total estimated expenditure of Rs. 4.26 lacs, the various amounts on account of Fees (2.02 lacs), Depreciation (.09 lacs), Contribution from Endowment income (0.13 lacs) and saving on account of reduction of a Lecturer in the Geography Department. The increase in income on account of raising of fees for undergraduate as well as post-graduate classes has also been taken into account to the extent of about Rs. 6,000 only.

#### FACULTY OF COMMERCE.

(11.24) Generally, the Faculty of Commerce should work at a small surplus. In this University it is working at a deficit of about Rs. 10,000. The need for the different items of expenditure and co-ordination of the activities of this faculty with the Economics Department of the Arts Faculty should be examined. We have no doubt that a re-organisation will result in a small saving or at least there will be no deficit. We, therefore, do not recommend any grant-in-aid for the maintenance of this faculty.

#### FACULTY OF EDUCATION AND PSYCHOLOGY.

(11.25) The Faculty of Education and Psychology in the University of Baroda has activities which are more than the normal activities of a Secondary Teachers' College. This faculty imparts instruction for courses of study leading to the B.Ed., T.D., the M.Ed. and the Ph.D. degrees. In addition, this Faculty makes provision for teaching and research in Psychology. The estimated expenditure on this Faculty, excluding that on the Experimental High School, is about Rs. 1.36 lacs. Deducting income from fees Rs. 26,700, depreciation Rs. 4,348 and contribution from income from endowments Rs. 5,930 the net deficit works out at Rs. .99 lacs. The number of lectures provided in this Faculty for a paper of 100 marks appears to be in excess of two per paper. Applying the principles regarding the normal work load of a teacher as worked out in Chapter III, paragraph (3.36), it is possible

to abolish the posts of one senior and one junior Lecturer, thus effecting a saving of about Rs. 10,000. In view of this, we consider a grant of Rs. 0.9 lacs as adequate to meet the deficit in this faculty.

(11.26) The University runs an Experimental High School and, as has been remarked earlier, no expenditure on this High School, apart from the grant-in-aid of Rs. 11,000 paid by the Department of Education under its normal rules, can be held admissible. After the departmental grant of Rs. 11,000 is taken into account, the High School still shows a deficit of Rs. 39,000. In order to give the University sufficient time to find an alternative source for this deficit, we are including this sum of Rs. 39,000 only for 1954-55 and 1955-56 and recommend that this amount may not be paid from 1956-57 onwards.

#### FACULTY OF TECHNOLOGY INCLUDING ENGINEERING.

(11.27) The Faculty of Technology including Engineering, provides for degree courses in Civil, Mechanical and Electrical Engineering and for Diploma and certificate courses in a wide variety of subjects. In addition, provision is also made for certain other courses. There is also a Technical High School. The number of students receiving instruction in the Technical High School is hardly 55 and the number of students enrolled for certain certificate courses is about 114. In spite of the small numbers, the Kalabhavan and the Technological Institute being constituent units, the University is under a statutory obligation to run them. The total expenditure on this faculty according to the budget estimates of 1953-54 is Rs. 6.31 lacs. Apart from the fee income of Rs. 1.51 lacs including workshop profit, the following items are held inadmissible on a recurring basis :—

Rs.

26,972 Depreciation on dead-stock, equipment and apparatus.

16,500 Depreciation on buildings.

6,665 Depreciation on Textile Technology building.

8,571 Depreciation on Textile Technology dead-stock.

15,000 Deputation to Zurich.

3,500 Proposed reduction in provision of Rs. 5,000 for Books for the Textile Technology Department.

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77,208

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Taking into account these figures, the net deficit works out at Rs. 4.02 lacs. This is reduced further by Rs. 46,500 which is the income from the fund of Rs. 28 lacs set apart for the Textile Technology Department. Thus, the net deficit is Rs. 3.56 lacs. We have disallowed expenditure on account of depreciation on dead-stock. We propose to allow, however, about Rs. 40,000 annually for small non-recurring items such as normal replacement of worn out, or unserviceable or obsolete apparatus and machines. Thus the total grant to meet the deficit on the faculty of Technology works out at Rs. 4.0 lacs, and we are including this amount in our calculations.

#### FACULTIES OF FINE ARTS, HOME SCIENCE AND SOCIAL WORK.

(11.28) In view of the remarks made earlier in this Chapter, we consider the faculties of Fine Arts, including the College of Music, Dance and Dramatics, Home Science and Social work together. The total expenditure on these faculties excluding

depreciation on buildings is estimated at Rs. 4.64 lacs. As against this there is the fee income of Rs. 54,000 and the income from Sir Sayajirao Diamond Jubilee Trust Fund amounting to Rs. 3.07 lacs, leaving a net deficit of Rs. 1.03 lacs. We recommend that the State Government grant on these three faculties be fixed at Rs. 50,000 for the next five years and the University may be informed that the remaining deficit should be met by donations or by grants from the Centre or by raising the tuition fees for which there is scope, or by adjusting the staff. We do not consider it necessary to make provision for development expenditure on these faculties.

#### ORIENTAL INSTITUTE AND SANSKRIT MAHAVIDYALAYA.

(11.29) We are adding to the abovementioned grants Rs. 72,000 on account of the Oriental Institute and Rs. 45,000 on account of the Sanskrit Mahavidyalaya as estimated in the budget, since these two institutions are constituent units of the University.

#### UNIVERSITY LIBRARY.

(11.30) We have not included the expenditure on the University Library under Administration. The estimated expenditure on the University Library seems reasonable and we are allowing Rs. 50,000 on this account. No further expenditure on the library seems justifiable as there is provision for the purchase of books and periodicals for each faculty and institution and all this expenditure has been already taken into account.

#### HALLS OF RESIDENCE.

(11.31) The University apparently incurs a deficit of about Rs. 32,000 on Halls of residence. Though there is an income of the same amount on account of rent on staff quarters, we are leaving aside this income, since the University has also the liability to keep these quarters in current repair. We propose to allow the full deficit, viz. Rs. 32,000 on account of deficit on hostels.

(11.32) After considering all the needs of the University, its commitments regarding the staff of the ex-Baroda Government and several of the activities of the Baroda Education Department and the responsibility of the University for maintaining its roads, buildings, etc., we find that a grant of Rs. 14.21 lacs at the maximum should be quite adequate from the State Funds as shown in the table below. We cannot justify any further rise of this grant from year to year for development, as this University has already quite a number of Faculties and a large number of subjects, in which instruction is at present being given. Rationalisation of the Departments on the lines we have suggested and the consequent decrease of liabilities due to reduction in staff in due course will lead to some reduction in expenditure. This saving should be utilised for other purposes.

The following is the table showing grants recommended to the University during the next five years :—

		<i>In lacs of Rupees.</i>				
		1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Administration ..		3.0	3.0	3.0	3.0	3.0
Teaching and Research.		11.21	11.21	10.97*	10.97	10.97
Total ..		14.21	14.21	13.97	13.97	13.97

\* The reduction of Rs. 24,000 from 1956-57 is on account of stoppage of grant of Rs. 39,000 for the Experimental High School less increase in expenditure, viz. Rs. 15,000 on account of the emoluments of the Professor of Chemistry.

(11.33) The University has made provision for the teaching of the subject of Textile Engineering upto the degree level. First year students have already been admitted and some expenditure on account of this Department has already been taken into the calculations for the assessment of grant-in-aid to the Faculty of Technology including Engineering. However, some additional grants from year to year will be necessary. We could not obtain the ordinances and regulations for courses of study in this subject beyond the second year. We were not, therefore, able to make any precise calculations on account of additional staff and additional non-recurring expenditure. Any recommendation that we make for recurring expenditure on the basis of the information so far supplied can only be approximate. We, therefore, recommend that Government may examine the exact needs on account of this Department from year to year and, after due scrutiny, meet the effective deficit on this account.

(11.34) It is a statutory obligation on the part of the University of Baroda to run the following institutions, in which instruction is given to students, who are not really University students, i.e., students who have passed the S. S. C. or an equivalent examination :—

- (1) Sanskrit Mahavidyalaya ;
- (2) Technical High School ;
- (3) Experimental High School in the Faculty of Education and Psychology ;
- (4) Music and Drawing classes for non-matriculates in the College of Music, Dance and Dramatics.

We are of the opinion that the authorities of the University should not be forced to run these institutions. We strongly feel that institutions of higher learning and research should not fritter away their energies and resources on pre-collegiate education.

(11.35) The list of posts filled by the M. S. University of Baroda since 18th September, 1952, is attached at the end of this Chapter, as Appendix (f) [vide (7.40) earlier].

#### ACKNOWLEDGEMENT.

(11.36) The authorities of the University of Baroda were good enough to supply us promptly with the information we wanted. This considerably reduced our labours. We thank the authorities for their having helped us in this way. We are grateful to the Pro-Vice-Chancellor Dr. C. S. Patel, who took us round all the different Departments of the University and was kind enough to explain to us every item in detail. We are also grateful to Dr. Miss P. Vakharia, Prof. V. V. Kolhatkar, Prof. T. K. N. Menon, Mr. P. Subba Rao and Dr. Rajammal P. Devadas for the valuable discussions we had with them about the organisation and development of teaching facilities in Baroda. We extend our thanks to all the Heads of teaching departments in the University of Baroda for the courtesies extended to us and for the promptness with which they supplied the necessary information.



APPENDIX (f) TO CHAPTER XI.

THE M. S. UNIVERSITY OF BARODA.

Statement showing Expenditure incurred on account of Pay and allowances of the Staff appointed after 18th September 1952 to Posts created before or after 18th September 1952.

Designation of post.	Date of creation quoting reference to resolution of the authority concerned.	Date of filling of the post.	Pay and allowances with scale.			Expenditure upto 31st March 1953.	Expenditure from 1st April 1953 to 31st March 1954.	Total expenditure.
1	2	3	4			5	6	7
<i>Faculty of Arts.</i>								
			Pay.	D.A.	H.R.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Tutor in Marathi	Senate Resolution No. 3, acted 22nd June 1953.	3rd December 1952	100	45	7	608 0 0	339 10 0	947 10 0
			In the grade of 100—10—200.					
Tutor in Sociology	Do.	4th July 1953	120	50	10	Nil.	1,509 10 0	1,509 10 0
			In the grade of 100—10—200.					
Field Research Assistant in Sociology.	Do.	1st July 1953	65	45	7	Nil.	1,053 0 0	1,053 0 0
			In the grade of 65—5—100—8—140.					
Junior Lecturer in Gujarati	Senate Resolution No. 12, dated 22nd March 1953.	1st July 1953	200	55	10	Nil.	2,370 3 0	2,370 3 0
			In the grade of 200—15—350.					
Junior Lecturer in Politics	Senate Resolution No. 8, dated 29th June 1952.	26th August 1953	120	50	10	Nil.	1,300 10 0	1,300 10 0
			In the grade of 200—15—350.					

APPENDIX (f) TO CHAPTER XI—contd.

Designation of post.	Date of creation quoting reference to resolution of the authority concerned.	Date of filling of the post.	Pay and allowance with scale.			Expenditure upto 31st March 1953.	Expenditure from 1st April 1953 to 31st March 1954.	Total expenditure.
			1	2	3	4	5	6
			Pay.	D.A.	H.R.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Library Clerk	.. Senate Resolution No. 4, dated 22nd June 1952.	3rd October 1952 ..	65	45	7	694 8 0	1,433 11 0	2,128 3 0
			In the grade of 65—5—100.					
Tutor in Hindi	.. Senate Resolution No. 4, dated 29th June 1952.	15th June 1953 ..	100	45	7	Nil.	1,449 1 0	1,449 1 0
			In the grade of 100—10—200.					
Draftsman in Archaeology	.. Do.	.. 1st October 1953 ..	100	45	7	Nil.	912 0 0	912 0 0
			In the grade of 100—10—200.					
Peon	.. Do.	.. 24th June 1953 ..	30	35	5	Nil.	646 6 0	646 6 0
			In the grade of 30— $\frac{1}{2}$ —35.					
Reader in Archaeology	.. Senate Resolution No. 6, dated 30th September 1950.	1st January 1953 ..	400	70	..	1,410 0 0	5,715 0 0	7,125 0 0
			In the grade of 400—25—650.					Senior Lecturer's post raised to Reader's post.
<i>Faculty of Science.</i>								
Demonstrator in Physics	.. Senate Resolution No. 3, dated 22nd June 1953.	1st July 1953 ..	100	45	7	Nil.	1,350 0 0	1,350 0 0
			In the grade of 100—10—200.					
Demonstrator in Chemistry	.. Do.	.. 1st July 1953 ..	100	45	7	Nil.	1,350 0 0	1,350 0 0
			In the grade of 100—10—200.					

Demonstrator in Botany	--	Do.	--	1st July 1953	--	100	45	7	<i>Nil.</i>	1,350	0	0	1,350	0	0
						In the grade of 100— 10—200.									
Junior Lecturer in Mathematics.		Senate Resolution No. 7, dated 10th October 1953.		11th July 1953	..	200	55	10	<i>Nil.</i>	2,299	8	0	2,299	8	0
						In the grade of 200— 15—350.									
Draftsman in Geography	--	Senate Resolution No. 3, dated 22nd June 1953.		1st July 1953	..	100	45	7	<i>Nil.</i>	1,350	0	0	1,350	0	0
						In the grade of 100— 10—200.									
Peon	--	Senate Resolution No. 3, dated 22nd June 1953.		1st July 1953	..	30	35	5	<i>Nil.</i>	630	0	0	630	0	0
						In the grade of 30— $\frac{1}{2}$ — 35.									
Tutor in Mathematics	--	Do.	..	2nd July 1953	..	100	45	7	<i>Nil.</i>	1,363	1	0	1,363	1	0
						In the grade of 100— 10—200.									
Junior Lecturer in Mathematics		Senate Resolution No. 6, dated 30th September 1950.		10th July 1953	..	200	55	10	....	2,308	1	0	2,308	1	
						In the grade of 200— 15—350.									
Junior Lecturer in Statistics	..	Senate Resolution No. 8, dated 29th June 1952.		11th September 1953.	..	335	70	..	....	2,700	0	0	2,700	0	0
						In the grade of 200— 15—350.									
Demonstrator in Statistics	..	Senate Resolution No. 4, dated 29th June 1952.		12th August 1953	..	100	45	7	....	1,162	1	0	1,162	1	0
						In the grade of 100— 10—200.									
Junior Lecturer in Chemistry		Senate Resolution No. 6, dated 30th September 1950.		10th July 1953	..	200	55	10	....	2,308	1	0	2,308	0	0
						In the grade of 200— 15—350.									
<i>Faculty of Education and Psychology.</i>															
Senior Lecturer in Education		Senate Resolution No. 12, dated 22nd March 1953.		9th November 1953		400 p. m., net in the grade of 300—15—450.			....	1,893	0	0	1,893	0	0
Tutor in Education		Senate Resolution No. 3, dated 22nd June 1953.		1st October 1952	..	100	45	7	912 0 0	1,824	0	0	2,736	0	0
						In the grade of 100— 10—200.									

APPENDIX (f) TO CHAPTER XI—contd.

Designation of post.	Date of creation quoting reference to resolution of the authority concerned.	Date of filling of the post.	Pay and allowance with scale.	Expenditure upto 31st March 1953.	Expenditure from 1st April 1953 to 31st March 1954.	Total expenditure.
1	2	3	4	5	6	7
				Rs. a. p.	Rs. a. p.	Rs. a. p.
Part-time Lecturer	Sonate Resolution No. 3, dated 20th June 1954.	30th May 1954 ..	Rs. 2,000 per annum ..	Nil.	Nil.	Nil.
*Part-time Lecturer	Sonate Resolution No. 3, dated 20th June 1954.	14th June 1954 ..	Rs. 2,000 per annum ..	....	....	....
	*Expenditure commenced from May 1954. University Experimental High School.					
Graduate Trained Teacher	Sonate Resolution No. 3, dated 22nd June 1953.	28th July 1953 ..	Pay D. A. H. R. 120 50 10 In the grade of 100— 10—200.	....	1,440 0 0	1,440 0 0
Do.	Do.	.. 1st September 1953	110 50 10 In the grade of 100— 10—200.	....	1,123 13 0	1,123 11 0
Clerk	Do.	.. 1st July 1953 ..	65 45 7 In the grade of 65—5— 100—8—140.	....	1,006 0 0	1,006 0 0
Graduate Trained Teacher	Do.	.. 1st July 1953 ..	100 45 7 In the grade of 100— 10—200.	....	1,368 0 0	1,368 0 0
Under-graduate Trained Teacher.	Do.	.. 28th June 1953 ..	80 45 7 In the grade of 80—5 —130.	....	1,209 15 0	1,209 15 0
Music Teacher	Do.	.. 16th November 1953	80 45 7 In the grade of 80—5 —130.	....	594 0 0	594 0 0

Faculty of Technology (including Engineering).

NO-A-BK H 500-9	Junior Lecturer in Electrical Engineering.	Senate Resolution No. 7, dated 11th October 1953.	7, 18th December 1953.	200	55	10	....	983 12 0	983 12 0
				In the grade of 200-15-350.					
	Junior Lecturer in Civil Engineering.	Senate Resolution No. 7, dated 5th October 1952.	7, 16th June 1953	200	55	10	.....	2,537 0 0	2,537 0 0
				In the grade of 200-15-350.					
	Junior Lecturer in Mechanical Engineering.	Do.	... Do.	200	55	10	.....	2,185 13 0	2,185 13 0
				In the grade of 200-15-350.					
	Demonstrator in Textile Engineering.	Senate Resolution No. 3, dated 22nd June 1953.	3, 1st July 1953	110	50	10	.....	1,530 0 0	1,530 0 0
				In the grade of 100-10-200.					
	Demonstrator in Geology	... Do.	... 25th July 1953	100	45	7	.....	1,250 4 0	1,250 4 0
				In the grade of 100-10-200.					
Laboratory Assistant in Geology.	Do.	... 22nd December 1952.	55	45	7	355 8 0	1,284 0 0	1,639 8 0	
			In the grade of 55-3-85-4-125-5-130.						
Peon	... Do.	... 1st August 1953	30	35	5	.....	560 0 0	560 0 0	
			In the grade of 30-1-35.						
Library Clerk	... Do.	... 1st July 1953	65	45	7	.....	653 9 0	653 9 0	
			In the grade of 65-5-100-8-140.						
Professor of Applied Mechanics.	Senate Resolution No. 6, dated 20th September 1950.	6, 15th June 1953	700	85	...	.....	7,483 10 0	7,483 10 0	
			In the grade of 700-50-1,000.						

\*Expenditure commenced from May 1954.

Designation of post.	Date of creation quoting reference to resolution of the authority concerned.	Date of filing of the post.	Pay and allowance with scale.	Expenditure upto 31st March 1953.	Expenditure from 1st April 1953 to 31st March 1954	Total expenditure.	
1	2	3	4	5	6	7	
				Rs.	a. p.	Rs. a. p.	Rs. a. p.
<i>Faculty of Fine Arts.</i>							
Junior Lecturer in Lithography.	Senate Resolution No. dated 5th October 1952.	7, 6th December 1952.	200 55 10 In the grade of 200-15-350.	1,017 3 3	3,256 12 0	4,273 15 3	
Store Clerk	Senate Resolution No. dated 22nd June 1953.	3, 1st July 1953	52 45 5 In the grade of 55-3-85-4-125 -5-130.	.....	918 0 0	918 0 0	
Tutor in Museology	Do.	... 16th July 1953	100 45 7 In the grade of 100-10-200.	.....	1,289 9 0	1,289 9 0	
Laboratory Assistant	Do.	... 12th September 1952.	55 45 7 In the grade of 55-3-85-4-125 -5-130.	.....	1,803 14 0	.....	
Junior Lecturer in Sculpture	Senate Resolution No. dated 29th June 1952.	8, 1st October 1952	245 60 ... In the grade of 200-15-350.	1,830 0 0	3,640 13 0	5,470 13 0	
Junior Lecturer in Process and Block Making.	Senate Resolution No. dated 30th September 1950.	6, 19th August 1953	245 60 10 In the grade of 200-15-350.	.....	2,337 2 0	2,337 2 0	
<i>Faculty of Home Science.</i>							
Teacher in Chetan Balwadi	Senate Resolution No. dated 22nd June 1953.	3, 7th July 1953	65 45 7 In the grade of 65-5-100-8-140.	.....	1,034 2 0	1,034 2 0	

No. A Bk H 500-9a

Junior Lecturer in Child Development.	Child	Senate Resolution No. 6, dated 30th September 1950.	6,	3rd November 1952.	200	55	...	1,258	0	0	3,140	0	0	4,398	0	0
						In the grade of 200-15-350.										
Senior Lecturer in Science Education.	Home	Do.	...	1st November 1952.	300	40	..	1,700	0	0	4,140	0	0	5,840	0	0
						In the grade of 300-15-350.										
<i>Faculty of Social Works.</i>																
Peon	..	Senate Resolution No. 3, dated 22nd June 1953.	3,	7th July 1953	30	35	5	....			616	6	0	616	6	0
						In the grade of 30-1-35.										
<i>College of Indian Music (Dance and Dramatics).</i>																
Assistant Kathak Teacher.	Dance	Senate Resolution No. 3, dated 22nd June 1953.	3,	16th July 1953	80	45	7	....			1,294	8	0	1,294	8	0
						In the grade of 80-5-150.										
Instrument Attender	..	Do.	..	1st July 1953	40	35	5	....			630	0	0	630	0	0
						In the grade of 40-3-70.										
Peon	..	Do.	..	1st July 1953	30	35	5	....			630	0	0	630	0	0
						In the grade of 30-1-35.										
Usted in Sitar	..	Senate Resolution No. 3, dated 30th September 1950.	3,	15th July 1953	60	45	7	....			957	6	0	957	0	0
						In the grade of 60-3-90.										
<i>Oriental Institute.</i>																
Superintendent, Section.	Collation	Synd. 31 (15), dated 8th December 1952.	20th	December 1952.	146	50	10	697	11	9	2,472	0	0	3,160	11	0
						In the grade of 200-15-350.										
<i>University Office.</i>																
Lady Doctor (Honorary)	..	Senate Resolution No. 3, dated 22nd June 1953.	3,	15th June 1953	75	per mensem	...	....			712	8	0	712	8	0
Senior Clerk	..	Do.	...	3rd November 1952.	100	45	7	753	5	0	1,903	7	0	2,656	12	0
						In the grade of 100-8-140.										

Designation of post.	Date of creation quoting reference to resolution of the authority concerned.	Date of filling of the post.	Pay and allowar with scale.	Expenditure	Expenditure	Total
				upto 31st March 1953.	from 1st April 1953 to 31st March 1954.	expenditure.
	2	3	4	5	6	7
				Rs. a. p.	Rs. a. p.	Rs. a. p.
Clerk .. ..	.. Senate Resolution No. dated 22nd June 1953.	3, 1st May 1953 ..	65 45 7 In the grade of 65-5-100-8-140.	....	1,255 15 0	1,255 15 0
Do. .. ..	.. Do.	.. 1st July 1953 ..	65 45 7 In the grade of 65-5-100-8-140.	....	1,053 0 0	1,053 0 0
Peon .. ..	.. Do.	.. 1st July 1953 ..	30 35 5 In the grade of 30-1-35.	....	630 0 0	630 0 0
Assistant Accountant .. ..	.. Senate Resolution No. dated 20th June 1954.	3, 23rd December 1953.	150 55 10 In the grade of 150-10-200.	....	768 7 0	768 7 0
Head Clerk .. ..	.. Do.	.. 10th March 1954 ..	150 55 10 In the grade of 150-10-200.	....	201 10 0	201 10 0
Senior Clerk .. ..	.. Do.	.... 15th March 1954 ..	100 45 7 In the grade of 100-8-140.	....	145 3 0	145 3 0
Mistry .. ..	.. Do.	.. 29th January 1954.	50 45 5 In the grade of 50-3-80-5-100.	....	234 0 0	234 0 0
<i>University Hostels.</i>						
Sweeper (Part-time) .. ..	.. Senate Resolution No. dated 22nd June 1953.	3, 1st July 1953 ..	25 per mensem ...	....	225 0 0	225 0 0



House Keeper	...	Senate Resolution No. 8, dated 22nd June 1953.	...	1st June 1953	...	Rs. 150 per mensem	...	.....	1,310	7	0	1,310	7	0
House Keeper	...	Do.	...	24th May 1953	...	65 45 7 In the grade of 65-5-100-8- 140.	...	.....	600	0	0	600	0	0
Puggy	...	Do.	...	1st July 1953	...	30 35 5 In the grade of 30-1/2-35.	...	.....	350	0	0	350	0	0
Puggy	...	Do.	...	1st July 1953	...	30 35 5 In the grade of 30-1/2-35.	...	.....	350	0	0	350	0	0
<i>University Gardens.</i>														
Puggy	...	Do.	...	1st July 1953	...	30 35 5 In the grade of 30-1/2-35.	...	.....	560	0	0	560	0	0
<i>*Sheth U. P. Ayurvedic Research Unit.</i>														
Senior Research Vaidya	...	Do.	...	15th November 1952.	...	450 70 In the grade of 300-15-450.	...	2,407 5 0	5,284	0	0	7,691	5	0
Junior Research Vaidya	...	Do.	...	15th November 1952.	...	200 55 10 In the grade of 200-15-350.	...	1,201 5 0	3,220	0	0	4,421	5	0
Clerk	...	Do.	...	12th January 1953 ..	...	65 45 7 In the grade of 65-5-100-8-140.	...	316 8 0	1,404	0	0	1,720	8	0
Laboratory Attendant	...	Do.	...	8th December 1953 ..	...	30 35 5 In the grade of 30-1/2-35.	...	264 3 0	841	8	0	1,105	11	0
									15,425 0 0 1,12,536 4 0 1,27,961 13 0					

\* The expenditure of the Unit is met from the grant of Rs. 36,000 sanctioned by the Government for the Unit.

## CHAPTER XII.

## UNIVERSITY OF BOMBAY.

(12·1) A brief account of the position as obtaining prior to 1948 in the University of Bombay has been given in the Chapter on "Growth and Development of the State Universities" in the first part. On account of the establishment of the Regional Universities progressively from the year 1948 onwards, the jurisdiction of the Bombay University is to-day confined only to Greater Bombay. Apart from this, a certain amount of re-organization of the Registrar's Office became necessary as a result of the abolition of the Matriculation examination, and the institution of a number of new degrees and diplomas. An Act to amend and consolidate the law relating to the University of Bombay was enacted as Bombay Act XXI of 1953. This new Bombay University Act aims at re-organizing the Bombay University to serve the needs of Greater Bombay and give greater impetus to the organization of post-graduate teaching and research in the different Faculties of the University. The new Act gives to the University powers for the control, regulation and co-ordination of all post-graduate instruction within the University area and also to control and regulate instruction, teaching and training in colleges beyond the stage of the Intermediate examinations and progressively to take substantial steps for co-ordinating such instruction, teaching and training by making available in common, facilities provided by colleges, in connection with lectures, seminars tutorials, libraries, laboratories and other equipments for teaching and research. Under the new Act, all colleges within the University area which are admitted to the privileges of the University automatically become constituent colleges of the University. All institutions within the University area which are recognised under section 52 of the Act also become automatically constituent recognised institutions of the University. It is provided in the Act that the relations of the constituent colleges and constituent recognised institutions with the University shall be governed by the statutes to be made in that behalf. By passing appropriate statutes, the University will have the power to lay down minimum educational qualifications for the different classes of teachers and tutorial staff employed by such colleges and institutions and the conditions of their service. The University will also have power to approve the appointment of teachers made by such colleges and institutions and, what is more important, to require each such college and institution to contribute a prescribed quota of recognised teachers in any subject for teaching on behalf of the University. The new Act empowers the University to levy contributions for providing certain facilities from its constituent colleges and recognised institutions and make grants to them.

(12·2) The authorities of the University, according to the new Bombay University Act, are in the process of formation and it is not possible at this stage to have a clear picture as to the pattern that will emerge due to the implementation by the University of sections 56 and 57 of the Act. No attempt will, therefore, be made in this Chapter to make a detailed estimate of the recurring grants that should be held admissible to the Bombay University for the next five years as has been done in the case of the other regional Universities. In the case of the Bombay University, it should suffice to consider the needs of the University as it is functioning to-day including the requirements of such of its existing post-graduate Departments as are essential for its growth and development and including also the expenditure which can justifiably be held admissible on the new Departments proposed to be opened or new subjects proposed to be included in the existing Departments. It would perhaps be possible to estimate on the above

basis a recurring block grant which may be held admissible to the Bombay University for the next two years after which it would be necessary to examine the stage of development reached by the University and the degree of control and co-ordination achieved by it under the provisions of the new Act. A more precise formulation of the basis of grant-in-aid to the University would, perhaps then, become possible.

(12.3) There are about 25 affiliated colleges in Greater Bombay which come under the jurisdiction of the Bombay University. Of these, 8 are Government institutions including the Institute of Science, two colleges of Arts and Science, one College of Commerce, one Medical College, one Veterinary College, one Secondary Training College and one Law College. Some of the non-Government Colleges are of fairly long standing and are taking part in graduate and post-graduate instruction. Post-graduate teaching is being conducted at present by the University in some subjects by drawing up a common time-table and utilising the services of such of the teachers in the affiliated colleges as are recognised as post-graduate teachers. The University itself directly conducts post-graduate classes for the Master's degree in Economics, Sociology, Politics, Statistics and for the B. Sc. (Tech.) degree in the different branches of Chemical Technology. Research students are also being enrolled in all the above subjects except Statistics. The University will have to take steps to organize and co-ordinate post-graduate teaching and research as contemplated by the new Act at the earliest possible moment. Detailed remarks regarding the qualifications and experience necessary for post-graduate teachers who should be allowed to be in charge of post-graduate teaching and research have already been made in Part I of this Report and the consequences of these suggestions have been indicated in connection with the organization and up-grading of the two Government colleges at Ahmedabad and Dharwar in the earlier chapters. We recommend that, in order to avoid overlapping and duplication of teaching and research facilities in the Bombay University area, a similar strengthening of the Elphinstone College and also, to some extent, the Ismail Yusuf College, will be necessary.

The authorities of the University have presented to us schemes for setting up Departments of Applied Psychology, History and Journalism. It is first necessary to introduce a B. Sc. course in Applied Psychology and this question may be examined by Government with reference to the Institute of Science. After a proper under-graduate course is introduced, a post-graduate department for teaching and research in Applied Psychology at the Institute itself or at the University, can be considered. Certain branches of Applied Psychology have already been provided for in the Faculties of Education and Psychology in Baroda and in the Department of Experimental Psychology in Poona. If facilities for Educational Psychology are to be provided, this question must be examined most appropriately by supplementing the existing facilities in the Secondary Training College, Bombay. So far as History is concerned, there is already a Department of History in the Elphinstone College. It is possible to upgrade this Department by adding to the staff and such upgraded Department may meet the requirements of the University for teaching and research in History. Both these questions about History and Psychology can, therefore, be examined properly after 2 years, when we expect that the provisions of the new Act will have been brought into force. We are, therefore, not in a position to recommend the starting of these Departments by the University at present.

So far as the Department of Journalism is concerned, we appreciate that there is need for such a Department in the University of Bombay, but even this question can only be examined properly after two years, when all the available facilities

in a scheme of complete co-ordination become clear. The authorities of the University have also asked for a Department of Law. There is already a Government Law College in Bombay and it will be more economical and more appropriate to provide these facilities, when considered necessary, in that College. We are, therefore, not in favour of the University establishing its own Department of Law.

(12.4) The Department of Statistics is, at present, providing only post-graduate teaching facilities. It is necessary that research facilities should also be provided in the Department. There is, therefore, need for the post of Professor of Statistics. The University Department of Statistics should, therefore, consist of one Professor of Statistics in addition to the present Reader and two Lecturers. This Department would then be quite adequate to undertake post-graduate teaching and research in Statistics and also assist the University School of Economics. The University may, therefore, be permitted to create a post of Professor of Statistics and the expenditure on this account may be admitted for Government grant from the year 1956-57 onwards.

(12.5) The University School of Economics and Sociology to which a Department of Politics has been added in 1948 has been doing good work for a number of years. The School has steadily grown in popularity and the number of students receiving instruction in March 1954, was nearly 500 including inter-collegiate students belonging to other colleges in Bombay. Out of these, 100 were reading for M.A. (Research) and Ph.D. degrees and the rest for the M.A. degree by papers. Out of 100 students who were reading for research, 70 were full time and the rest "part time". For students who were reading for the M.A. examination by papers, lectures were organised in the school from 1 p.m. to 4-45 p.m. on week days and hence although it was not possible to ascertain the exact number of such students who were doing a full-time or a part-time job besides their studies, the number of such students according to the Director of the School, is not likely to be large. It may also be remarked that a number of students from the Regional Universities of Poona, Karnatak, Baroda and Gujarat are admitted to this School in addition to students from Bombay City and Suburbs. We are constrained to remark that although the School of Economics and Sociology is well organised for post-graduate instruction and research, it would be hardly possible for the School to maintain standards of instruction and tutorials envisaged in Chapter III of this Report, due to sheer weight of numbers. It will be perhaps possible to grant admission to new entrants on a less generous scale. It is earnestly suggested that students who are otherwise employed during the normal working hours of the School should not be granted admission except in very special circumstances. It may also be remarked that there is room for giving a little more work to some of the Lecturers in the School in the light of general remarks we have offered earlier in Chapter III of this Report. Before this is done, the School should not consider adding to the existing staff. The number of students admitted for research should be strictly in accordance with the principles laid down in Part I of this Report.

(12.6) A scheme for opening a Section in Industrial Economics and Industrial Administration in the University School prepared by the Director was forwarded by the Registrar to the Government of Bombay by his letter No. 2827, dated 4th February 1954. This scheme was sent by the Government to our Committee for consideration. The scheme was carefully studied by the Committee. At the time of the Committee's visit to the Bombay University, the scheme was discussed with Prof. C. N. Vakil, the Director of the University School of Economics and Sociology,

and in the light of that discussion Prof. Vakil supplied to the Committee a revised scheme involving some reduction in expenditure. During the course of discussion, it was suggested to Prof. Vakil that the new courses could, perhaps, be better related to a College of Commerce. In reply to this question, Prof. Vakil has stated in his supplementary note accompanying his revised scheme that the topics indicated in the new course were done at some stage of the B.Com. or M.Com. Examination, but the approach and outlook were different. The proposed new courses were intended to be more advanced and have a definite bias towards practical aspects of the problems. Prof. Vakil felt that the existing provision for teaching the M.Com. courses in Bombay was inadequate, as most of the teachers had to do heavy under-graduate teaching. There was little specialisation except in a few cases. Only one teacher in Commerce had been recognised for the Ph.D. degree and he had specialised in Banking. In the proposed course, the emphasis was on specialisation in each one of the subjects included in the new course. In view of this, Prof. Vakil felt that it would not be appropriate to ask teachers in the Commerce Colleges to take part in teaching these subjects in the University.

(12.7) The question was discussed by the Committee with Dr. Muranjan, the Principal of the Sydenham College of Commerce. It emerged from the discussion that all the subjects in the proposed scheme, except the subject of quality control, were taught at the Sydenham College either at the B.Com. or the M.Com. stage and that it would be more appropriate and far more economical for the Section in Industrial Economics and Industrial Administration to be attached to the Sydenham College instead of to the University School of Economics and Sociology. There are 7 members of the staff at the Sydenham College who are recognised as Post-graduate teachers for M.Com. courses and there are others, who possess the necessary qualifications or recognition as Post-graduate teachers. Dr. Muranjan has suggested that it would be easy to integrate the new Section with the present M.Com. syllabus by amending it slightly and introducing optional subjects covering the proposed new Section of Industrial Economics and Industrial Administration. The revised syllabus would offer 4 papers from amongst the existing subjects for the M.Com. course and 4 new subjects relating to the proposed new Section, as additional optional subjects.

(12.8) The Bombay University has already approached the Government of India for a non-recurring grant for the construction of a floor above half the eastern wing of the University Building and this half floor is proposed to be utilised for the new Section to be opened in the University School of Economics and Sociology. On the other hand, if this Section is integrated with Post-graduate teaching at the Sydenham College of Commerce, it will be necessary to put up additional accommodation on top of the new Sydenham College Building or provide a new building in the plot adjoining the new College.

(12.9) The Committee has carefully considered the position in the light of the foregoing remarks and has come to the conclusion that it would be appropriate to introduce the teaching of these subjects in the University of Bombay, as they provide for advanced training in important branches of Applied Economics. Provision in these branches of study does not exist in any other University in the State and it is proper that the proposed Section should be started in the industrial City of Bombay. The proposed courses, however, relate more to the Faculty of Commerce than to the Faculty of Arts and although the courses may be of an advanced nature, they would integrate more naturally with Post-graduate teaching in Commerce than with courses in Economics and Sociology on the Arts side. The Committee, therefore, proposes that the new Section should be located at the Sydenham College of Commerce and

Economics and not at the University School of Economics and Sociology. Provision of the new Section at the Sydenham College will add to the efficiency of the M.Com. teaching and will also raise the tone of under-graduate teaching. This section should, therefore, be started at the Sydenham College of Commerce by addition of the teaching staff as recommended by Prof. Vakil. The staff recommended is given below :—

1. Reader in Industrial Economics.
2. Reader in Industrial Administration.
3. Reader in Industrial Relations and Personnel Management.
4. Lecturer in Public Utilities and Public Enterprise (Part-time).
5. Lecturer in Cost Accountancy (Part-time).

The Committee has considered the existing designations and scales of pay in Colleges and Universities and decided to recommend uniform scales of pay and designations in affiliated Colleges and Universities. Under this recommendation, Readers can be appointed in Colleges. The details of qualifications and pay scales laid down for Professors, Readers and Lecturers will be found in Part I of this Report. The Committee is satisfied that the staff asked for by Prof. Vakil is reasonable, as the three new full-time members of the staff will, in addition to their ordinary load of teaching work and field work in the new Section, be able to undertake M.Com. teaching in related papers. The subject of quality control for which provision is not made in the staff proposed above, will be taught by the University Department of Statistics in the Scheme of Co-ordination of Post-graduate teaching under the new Act.

(12.10) The Committee recommends that the Government of Bombay may approach the Government of India for sanctioning the recurring and non-recurring grants for starting the new Section in the Sydenham College of Commerce and Economics, Bombay. These grants would ordinarily be available to the University of Bombay, if the new Section were located there.

(12.11) A copy of Prof. Vakil's revised scheme as also a copy of Dr. Muranjan's remarks are attached herewith as Appendices (g) and (h) respectively.

#### DEPARTMENT OF CHEMICAL TECHNOLOGY.

(12.12) The Department of Chemical Technology submitted to us a scheme of development of the Department at a capital cost of about Rs. 34 lacs and an annual recurring cost of nearly Rs. 5 lacs. This scheme has been submitted already to the Government of India. When we visited the Department, we inquired of the Director whether he had any modest scheme. In reply to our query, he submitted a revised scheme (copy attached as appendix (1) to this Chapter) which would involve an expenditure of Rs. 11 lacs non-recurring and Rs. 1.9 lacs recurring. Even this revised scheme contemplates a basic modification of the very structure of the existing courses in Chemical Technology. At present, there are a number of courses in the Department which are of 2 years' duration and for which B.Sc.s. with Chemistry are admitted. Some of these courses are to be abolished and instead one year courses are to be provided in the same subjects for those who have undergone a four year course after Inter Science leading to the degree of B.Chem. We consider that such a revision in the structure of the Department so far as its organization of teaching is concerned, requires examination at the hands of an expert committee. In view of this fact, we are unable to recommend the scheme to Government.

Before any additions to the existing teaching staff in the Department are made, we would suggest that the work load of the teachers in the Department may be examined in the light of our remarks on this question in Part I of the Report (*vide* paragraph 3.32).

#### UNIVERSITY HOSTEL ON THE RECLAMATION AREA.

(12.13) The University of Bombay has proposed the construction of a University Hostel on the Reclamation Area mainly for Post-graduate students. The University Hostel recently constructed at Matunga on the grounds of the Department of Chemical Technology serves the needs of that Department. A few seats are assigned in that hostel to students of other Departments which are located in University buildings, but this accommodation is not enough and some students of these University Departments are housed in a rented building at 79, Queen's Road, where there are only 40 seats. It is also possible that students from Regional Universities might come to Bombay for certain specialised courses provided by the Bombay University. Visualising the acute shortage of hostel facilities for students in Bombay and the increased need for this facility likely to be felt in the near future, the University proposed to construct a building to accommodate at least 150 students, on a fairly large plot on the Reclamation Area, measuring about 2,000 square yards, if such a plot is made available to the University by Government. In addition to the hostel building, the University will need to construct quarters for the Warden, office for the Warden, Common Rooms for students, Kitchen, etc. Out of these 150 seats, the University has shown readiness to reserve about 50 seats for students coming from other Universities in the State.

(12.14) The need of the University is genuine. We would recall, however, that we have remarked in Part I of this Report that the University should provide at least  $\frac{1}{4}$ th of the non-recurring expenditure proposed to be incurred by it and then the State Government may consider paying the balance as a non-recurring grant. In the present case, we understand that the University of Bombay has requested the Government of India for a non-recurring grant for the Hostel. In view of this, we recommend that the State Government may pay to the University a non-recurring grant not exceeding  $\frac{1}{3}$ rd of the total cost of the hostel including cost or rent of the plot of land, provided the University obtain from the Government of India or from any other source, the remaining  $\frac{2}{3}$ rds. As a matter of fact, the maintenance of the hostel will also involve some recurring charge on University funds inasmuch as it will not be possible for the University to recover fully from the students the cost of maintenance of the hostel. It should be suggested to the University, however, that in view of the high cost of accommodation in Bombay, an attempt should be made to recover not less than  $\frac{3}{4}$ ths of the recurring cost from the students by way of rent. We are not including any non-recurring grant for the Hostel in our recommendations since it is not likely that the University will be ready to claim it, on the conditions set out by us, before 1955-56.

#### BASIS OF GRANTS.

(12.15) In view of the reasons given earlier in this Chapter, it would not be possible to assess the recurring grant admissible to the Bombay University on the basis adopted in the case of the other Regional Universities. It seems, therefore, that for the next two years, the grant payable to the Bombay University should be calculated on the basis of the budget estimates of 1953-54 on a

more or less *ad hoc* basis. These estimates show a deficit of about Rs. 1 lac after taking into account a Government grant of Rs. 6.25 lacs. As these are merely estimates, we do not visualise any serious deficit during 1953-54. We feel, therefore, that a grant of Rs. 6.5 lacs during 1954-55 and Rs. 6.75 lacs during 1955-56 should meet the needs of the University for the next two years. We would like to remark that the deficit on Post-graduate teaching and research in the existing University Departments is over Rs. 7 lacs and seems rather heavy. In cases in which the salaries and allowances of any teaching staff are in excess of those recommended by us in Part I of this Report, the excess of expenditure should not be admitted for Government grant. The University should also explore the possibility of some reduction in expenditure on establishment expenses on the administrative side both in the University office as well as in the University Departments. We consider that there is some room for economy also in expenditure on examinations. If these suggestions are accepted, the University will have no difficulty in balancing its budget for the next two years. We have not recommended any expenditure on further development at this stage, as we feel that the University should implement the provisions regarding control and co-ordination of Post-graduate teaching and research in the new Act before embarking on any further expansion. A general review of the expenditure structure of the University may be undertaken during the year 1955-56 with a view to fixing the grant admissible to the University during the three subsequent years. In case the University makes any new appointments over and above those which existed on 31st March 1954 in the existing departments or incurs fresh expenditure on new departments, all this expenditure should be excluded for purposes of calculation of grant for the next two years.

(12.16) The list of posts filled by the University of Bombay since 18th September 1952 is attached at the end of this Chapter as Appendix (j) (*vide* 7.40 earlier).

#### ACKNOWLEDGEMENT.

(12.17) It gives us great pleasure to express our thanks for the valuable co-operation given to us and for the useful discussion we had with Shri Navroji J. Wadia, Vice-Chancellor, Professor C. N. Vakil, Dr. G. S. Ghurye, Dr. K. Venkataraman, Shri M. C. Chakravarty, Dr. K. P. Mukerji, Shri D. N. Marshal and Shri S. R. Dongorkery.

We are grateful to Professor C. N. Vakil, Director of the School of Economics and Sociology, Dr. K. Venkataraman, the Director of the Department of Chemical Technology, Shri M. C. Chakrabarti, Head of the Department of Statistics and Heads of other Departments of the University for taking us round and explaining to us their working and their needs.

Shri N. L. AHMAD,  
Chairman.

Shri J. A. TARAPOREVALA,  
Shri S. V. C. AIYA,  
Members.

Shri N. R. TRIVEDI,  
Member-Secretary.

POONA, 28th August 1954.



## APPENDIX (g) TO CHAPTER XII.

UNIVERSITY OF BOMBAY.

## STATEMENT I.

## PROPOSED SECTION IN INDUSTRIAL ECONOMICS AND INDUSTRIAL ADMINISTRATION.

*Supplementary Note with Revised Scheme and Estimates.*

It may be noted that for the first two subjects of study, viz., "Structure and Organization of Industries" and "Industrial Finance and Financial Institutions", no separate provision has been made in the proposed staff. Part of this work will be done by the Reader in Industrial Economics and part by the members of the existing staff.

2. It is true that a few of the topics indicated in this course are done at some stage of the B.Com. or M.Com. examination. The approach and outlook are, however, different. The work for the B.Com. is of the under-graduate level and elementary. In many cases, the topics in this course are new or different. The combination of these subjects is appropriate for the training of industrial executives. The proposed new course will be more advanced and besides, there will be a definite bias towards practical aspects of the problems.

3. Besides, so far as the M.Com. courses are concerned, the existing provision for teaching them in Bombay is inadequate, as most of the teachers have to do heavy work for undergraduate teaching. There is very little specialisation except in a few cases. Only one teacher in Commerce has been recognised for the Ph.D. degree and he has specialised in Banking. In the present course, the emphasis is on specialisation in each of the subjects, if the object is to succeed.

4. In view of this, it would not be appropriate to ask teachers in the Commerce Colleges to take part in teaching these subjects in the University. It may be possible, however, that some of the teachers doing this course may be able to give some lectures for the M.Com. course.

5. As already indicated, there will be only 20 students in the first year. In the second year, another batch of 20 will be taken. As it is a two years' course, from the second year the total strength will be 40 students.

6. In the first year each Lecturer may have two lectures a week in his subject; in a few cases more. In addition, he will have at least 4 tutorials; a batch of 5 students for a tutorial once a week. This will enable intensive work to be done. The lectures and tutorial work will increase from the second year; in some cases it will be doubled.

7. It will be necessary for the members of the staff of this Section to be in touch with industry and understand first-hand practical problems of industry so that they may be able to explain the same to the students. For this purpose, they will have to be in general contact with industrialists. They will also undertake some specific problems of research in industrial problems in the investigation of which they will know more about such practical problems.

8. Besides, the teachers will have to take batches of students to industrial houses from time to time for general contact with practical work. The same applies for contact with industrial labour. Besides such general contact, they will have to organize talks by businessmen or industrial executives for practical "case studies". The teachers will themselves have to follow these case studies and sit in the class with the executives to help in the discussion. This will give them experience which will be valuable in future.

9. The above points will make it clear that this will be an attempt to organize and develop a new activity for training industrial executives which is somewhat different from what is done in existing academic institutions. The methods and experience of similar institutions in the U.S.A. will be adopted with suitable modifications to suit our requirements. We shall learn by experience and gradually develop in the light of the same. In order to develop on these lines, there should be a good team of full-time workers who can devote themselves to the cause. Part-time workers from outside will not be able to do this work as expected.

10. One of the Readers who is competent for the work will also be asked to help in the administrative work of the Section. The Director of the School will be in charge of the Administration, but it would be desirable to train at least one Reader for the work so that he may be useful in future.

11. After taking into account all these points and reviewing the position in the light of the discussion with the Committee, it is felt that the scheme as submitted is the minimum that is necessary to make a good start. In order, however, to minimise the cost in the beginning, the following changes may be made in the estimates for recurring expenditure.

11. (a) The provision for a separate part-time lecturer in Economic-Statistics and Quality Control may be dropped on the assumption that the proposed expansion of the Department of Statistics will enable that Department to help in this connection. The provision for two Research Fellows may be dropped for the first two years as the need for such fellowships may not arise in the beginning. The Research Assistant, however, will be required to help the staff in some of their work. In the subordinate staff, the provision for a junior Superintendent may be dropped.

11. (b) Providing for a fee of Rs. 110 per term, there will be a receipt of Rs. 4,400 from 20 students in the first year, and Rs. 8,800 in later years. Allowing for the following free studentships and scholarships to some deserving candidates, as well as Research Fellowships in due course out of the receipt from fees, the net receipt may be taken roundly at Rs. 5,000.

	Rs.	Rs.
Total receipts from tuition fees (at Rs. 110 per term from 40 students).	.....	8,800
<i>Less—</i>		
Four free studentships each at Rs. 220 per year ... ..	880	
Five scholarships each at Rs. 240 per year ... ..	1,200	
Two Research Fellowships each at Rs. 900 per year ... ..	1,800	
		3,880
		<hr/>
Net receipts from fees ...		4,920
		<hr/>

11. (c) Taking into consideration the savings proposed by reducing certain posts in the teaching staff and the subordinate staff and the net income from fees, the position will be as under :—

	Original estimates.		Saving as suggested above.
	Rs.	Rs.	
1. For Teaching and Research Staff	49,052	4,200	(One part-time lecturer and two research fellows).
2. For subordinate staff ... ..	17,776	5,156	(One Junior Superintendent).
3. Tuition fees ... ..	.....	5,000	(Net income towards reduction of expenditure.)
		<hr/>	
Total ...		14,356	
		<hr/>	

It should thus be possible to reduce the total recurring charges from Rs. 79,828 to Rs. 65,472.

11. (d) So far as the non-recurring charges are concerned, the item under "furniture and equipment including statistical machines", requires some consideration. *If the Statistical Department is likely to have statistical machines*, which may be made available for the use of this Section, the need to that extent will be reduced. It would be necessary, however, as soon as possible, to have a small collection of important industrial products by way of specimens. In some cases this may be in the form of charts and pictures. Allowing for Rs. 20,000 for furniture and equipment and Rs. 10,000 for the Industrial Museum, and deducting the cost of Statistical Machines, it may be possible to reduce this item from Rs. 40,000 to Rs. 30,000. It is suggested, however, that due to the need for architectural uniformity in the University Buildings, the cost of the additional floor to the East Wing may be somewhat higher. It is requested that the estimate for non-recurring expenditure may be kept at Rs. two lakhs as in the original estimate.

11. (e) It may be pointed out that the revised estimate for the scheme now suggested represents considerable reduction, particularly so far as the recurring cost is concerned, as indicated below and is the minimum required for starting the Section :—

	Recurring.	Non-recurring
	Rs.	Rs.
Original Scheme for a full-fledged Department in Industrial Economics and Industrial Administration submitted to the Government of India in August 1952 for the Development Programme of Universities in India under the Five Year Plan ... ..	1,21,262	1,80,000
Scheme for a Section in Industrial Economics and Industrial Administration as submitted to the Government of Bombay ... ..	79,828	2,00,000
Revised Scheme for a Section as above as submitted to the Universities Co-ordination Committee ... ..	65,472	2,00,000

For the sake of convenience, the revised estimate for the scheme as a whole is given below:—

## (12) REVISED ESTIMATES.

I. <i>Non-recurring</i> —	Rs.
Building* (addition of half a floor to the new building, i.e., East Wing) ...	1,60,000
Library (Books and Journals) ... ..	10,000
Furniture and Equipment including Statistical Machines ... ..	30,000
	2,00,000

\*N.B.—The estimate for the whole floor is more than Rs. 3 lakhs; half a floor will be adequate to house this section.

II. <i>Recurring</i> :	Present grade.	Annual average salary.	Annual dearness allowance.
1. <i>Teaching and Research Staff</i> —			
	Rs.	Rs.	Rs.
Reader in Industrial Economics ... ..	500—25—800	8,664	1,020
Reader in Industrial Administration ... ..	500—25—800	8,664	1,020
Reader in Industrial Relations and Personnel Management. ... ..	500—25—800	8,664	1,020
Lecturer in Public Utilities and Public Enterprise (Part-time) ... ..		2,400	.....
Lecturer in Cost Accountancy (Part-time) ... ..		2,400	.....
Research Assistant ... ..	160—15—250	2,874	720
Occasional Lectures ... ..		5,000	.....
		38,666	3,780
			=42,446
	Provident Fund ...		2,406
			44,852

†N.B.—Some of the subjects in the Scheme will be done by the existing members of the staff of the School

2. *Research Grants for Tours to Industrial Areas.*—

1. Research Grant ... ..	4,000
2. Visits to Institutions ... ..	4,000
	8,000

3. *Subordinate Staff.*—

Senior Assistant ... ..	160—10—240	2,736	720
2 Clerks ... ..	75—200	3,552	1,200
2 Peons ... ..	35—40	936	840
1 Hamal ... ..	35—40	468	420
1 Sweeper ... ..	35—40	468	420
		8,160	3,600
	Provident Fund ...		524
	House rent to menial staff ...		336
			12,620

			Rs.	Rs.
4. Library (Books and Journals)	..	..	....	5,000
		Total of 1 to 4—Recurring	..	70,472
Less Not income from Tuition Fees as estimated above [paragraph 11 (b)]	..	..	..	5,000
		Total recurring	..	65,472

## STATEMENT II.

*Number of students coming from different Universities of Bombay State.*

University.	Men.	Women.	Total.
Bombay (City and Suburbs)	122 (28)	124 (21)	246 (49)
Poona	12 (1)	3	15 (1)
Karnatak	20 (1)	3	23 (1)
Baroda	2	....	2
Gujarat	39 (1)	13	52 (1)
Total	195 (31)	143 (21)	338 (52)

*N.B.*—Figures in brackets show the number of inter-collegiate students.

## STATEMENT III.

Statement showing the Number of Research Students working under each Member of the Staff (15th March 1954):

Name.	Designation.	Ph.D.		M.A. (Res.).		Total.		Grand Total.	
		Men.	Women.	Men.	Women.	Men.	Women.		
1. Professor C. N. Vakil	... Professor of Economics and Head of the Department of Economics.	7	2	...	...	7	2	9	
2. Professor G. S. Ghurye	... Professor of Sociology and Head of the Department of Sociology.	7	3	...	...	7	3	10	
3. Professor K. P. Mukerji	... Professor of Politics and Head of the Department of Politics.	7	3	...	...	7	3	10	
4. Professor M. L. Dantwala (services lent to Government of India).	Reader in Agriculture Economics	...	8	2	1 (M.Sc. Agri.)	...	9	2	11
5. Dr. D. T. Lakdawala	... Reader in Economics	...	9	...	...	...	9	...	9
6. Dr. K. M. Kapadia	... Reader in Sociology	...	1	6	1	1	2	7	9
7. Dr. Miss A. J. Dastur	... Reader in Politics	...	6	...	2	...	8	...	8
8. Mr. D. R. Samant	... Lecturer in Economics	...	9	1	...	...	9	1	10
9. Dr. B. V. Krishnamurthy	... Do.	...	...	...	7	1	7	1	8
10. Dr. K. N. Naik	... Lecturer in Agriculture Economics	...	...	...	5	1	5	1	6
11. Dr. A. R. Desai	... Lecturer in Sociology	...	...	...	1	1	1	1	2
12. Dr. Miss P. H. Cabinetmaker	... Do.	...	...	...	1	3	1	3	4
13. Mr. R. Dwarkadas	... Lecturer in Politics	...	...	...	1	1	1	1	2
14. Dr. N. K. Krishnan (Temporary).	... Do.	...	...	...	1	1	1	1	2
Total ...		54	17	20	9	74	26	100	

## STATEMENT IV.

## A NOTE ON FULL-TIME OR PART-TIME STUDENTS IN THE SCHOOL.

There were on the roll on 15th March 1902 a total of 501 students including inter-collegiate students who numbered 57. Out of these 100 were reading for M.A. (research) and Ph. D. degrees, and the rest for the M.A. degree by papers. Out of 100 students who were reading for research, 70 were full-time and the rest part-time.

It is not possible, however, to furnish similar information regarding those reading for the M.A. examination by papers. In view, however, of the fact that the lectures in the School for the M.A. course by papers extend from 1 p.m. to 4-45 p.m. on week days, it is not possible for a student to take up a full-time job and carry on his studies simultaneously. The number of students doing their M.A. course by papers, who also do some other work, is therefore bound to be small.

## APPENDIX (A) TO CHAPTER XII.

## UNIVERSITY OF BOMBAY.

*Scheme for the Proposed Section in Industrial Administration and Industrial Economics in the Sydenham College of Commerce and Economics, Bombay.*

## Section in Industrial Economics and Industrial Administration.

As all the subjects in the proposed scheme except Quality Control are taught at the Sydenham College either at the B.Com. or at the M.Com. stage, it would be more appropriate and far more economic for the Section in Industrial Economics and Industrial Administration to be attached to the Sydenham College instead of being started as a new Section attached to the School of Economics and Sociology, University of Bombay.

2. Such of the existing members of the teaching and research staff as are already recognised for post-graduate work and others who possess the necessary qualifications for being recognised as post-graduate teachers can help in the running of the Section. At present 7 members of the staff have been recognised as post-graduate teachers for the M.Com. courses and there are others who possess the necessary qualifications to get recognition for M.Com. courses. As a matter of educational policy, it is more desirable to have both under-graduate and post-graduate teaching and research carried out in one and the same institution rather than in separate institutions. If the proposed section in Industrial Economics and Industrial Administration is started in the Sydenham College, it would get the benefit of experienced teachers in the various subjects proposed for the Section and unnecessary duplication of teaching staff and teaching effort could be avoided.

3. It would be possible to secure the object of the proposed scheme by suitable alterations in the present structure of the M.Com. courses. Under the present scheme the M.Com. degree can be obtained either by Thesis or by passing a written examination consisting of 4 Compulsory papers and 4 papers selected from a number of voluntary subjects. The object of specialisation at the M.Com. stage is secured by the Voluntary subjects. Thus a student desiring to specialise in Actuarial Science can offer Actuarial Science as his Voluntary subject and has to study 4 papers in that subject. Similarly a candidate desiring to specialise in Cost Accounting can offer 4 papers in Cost Accounting. On the same lines, specialisation in Industrial Economics and Industrial Administration can be secured by prescribing 4 papers which must be offered by candidates to specialise in this group. It may be suggested that those who want to specialise in Industrial Economics and Industrial Administration should be required to offer the following 4 papers as their voluntary subjects:—

1. Industrial Administration.
2. Industrial Relations and Personnel Management.
3. Cost Accounting—Paper I.
4. Economic Statistics and Quality Control.

4. The structure of the M.Com. Syllabus could be amended as follows with the object of providing a specialised course in Industrial Economics and Industrial Administration:—

<i>Amended Scheme.</i>	<i>Existing Scheme.</i>
Compulsory subjects.	Compulsory subjects.
1. Public Utilities and Public Enterprise.	1. Public Economics.
2. Industrial Finance and Financial Institutions.	2. Corporation Finance.
3. Structure and organisation of Industries.	3. Organisation of Trade and Transport.
4. Organised Markets.	4. Organised Markets.
<i>Amended Scheme.</i>	<i>Existing Scheme.</i>
Optional Subjects.	Optional Subjects.
(a) (i) Industrial Administration.	Organisation of Industries.
(ii) Industrial Relations and Personnel Management.	Labour Administration.
(b) (i) Cost Accounting—Paper I.	Paper I of Cost Accounting.
(ii) Economic Statistics and Quality Control.	
(c) Actuarial Science—4 papers.	Actuarial Science—4 papers.
(d) Cost Accounting—4 papers.	Cost Accounting—4 papers.
(e) (i) Agricultural Co-operation.	(i) Agricultural Co-operation.
(ii) Co-operative Finance and Marketing.	(ii) Co-operative Finance and Marketing.
(f) (i) Foreign Exchange	(i) Foreign Exchange.
(ii) International Banking.	(ii) International Banking.

Arrangements should be made with industrial firms and State enterprises to afford opportunities for practical training to the candidates. Arrangements would also be made to invite persons well versed to practical industrial work to give short courses of lectures and have discussions with the candidates for case studies as in the U. S. A. visits to places of interest in industrial problems will also be arranged.

Proposed Staff and Financial Estimates for the Section in Industrial Economics and Industrial Administration.

5. I. *Non-recurring—*

			Rs.
*Building (additions to the building)	Library (Books and Journals)	.. ..	*10,000
	Furniture and Equipment including statistical machines	.. ..	40,000

II. *Recurring—*

	Annual average salary.	Annual D. A.	C. A.
	Rs.	Rs.	Rs.
<b>1. Teaching and Research Staff—</b>			
Professor of Industrial Administration, B.E.S. Class I (Rs. 350—1,100).	4,200	840	600
Lecturer in Industrial Economics and Statistics, B.E.S. Class II (Rs. 200—650).	2,400	660	600
Lecturer in Cost Accounting (Part-time) Rs. 150 fixed pay.	1,800	420	....
Research Assistant, B.E.S. Class II (Rs. 200—650)	2,400	660	600
Fellows—Rs. 75 fixed .. ..	900	....	....
Occasional Lecturers .. ..	5,000	....	....
	16,700	2,580	1,800
<b>2. Subordinate Staff—</b>			
Head Clerk Rs. 160—10—240 .. ..	1,920	660	....
1 Clerk Rs. 75—200 .. ..	900	540	....
1 Steno-typist Rs. 75—200 plus Rs. 40 per mensem.	1,380	600	....
1 Peon Rs. 35—1/2—40 .. ..	420	420	H. R. 72
1 Hamal Rs. 35—1/2—40 .. ..	420	420	H. R. 72
	5,040	2,640	144
<b>4. Library (Books and Journals)</b> ..	4,000		
<b>Total recurring expenditure ...</b>	<b>31,904</b>		

\* *Building.*—As it will not be possible to accommodate the proposed section in the new building of the College under construction, accommodation for it will have to be made by making additions to the building. Or alternately it is suggested that the adjoining plot of the new building may be reserved and a building may be constructed so that the whole post-graduate work will be accommodated in it.



## APPENDIX (i) TO CHAPTER XII.

## UNIVERSITY OF BOMBAY.

*Programme for the development of the Department of Chemical Technology on priority basis to be submitted to the Government of Bombay.*

The highest priority is to be given to the institution of a B.Pharm. course in the Pharmaceutical Section of the Department. The cities of Bombay and Calcutta are the two main centres of the pharmaceutical industry in India. Several members of the staff of large pharmaceutical factories and the Drug Controller, Bombay State, are co-operating, and it is hoped will continue to co-operate, in the teaching programme of the Pharmaceutical Section. The Department is, therefore, in a very favourable position for undertaking the B.Pharm. course. The degree of B.Pharm. has been included in the Statutes of the University, but courses for the degree are not offered at present by any institution within the territorial jurisdiction of the Bombay University under the new Act. The difference between the training given in the B.Sc. Tech. and B.Pharm. courses is that the former has a background of chemical engineering and general engineering and the emphasis is on pharmaceutical chemistry and the technology of pharmaceuticals, with particular reference to synthetic drugs and manufacturing operations; the B.Pharm. course is intended to meet the need for pharmacists with a sound knowledge of dispensing and standardization of drugs required by hospitals, drug stores and certain pharmaceutical factories which are mainly concerned with the preparation of tinctures, tablets, injectibles, etc.

For the reasons explained in Appendix D ("Development of the Department of Chemical Technology") in our letter No. 30339, dated 20th August 1952, addressed to Shri P. Gangulee, Under Secretary to the Government of India, Ministry of Education, New Delhi, it is proposed that sixty students may be admitted to the B. Chem. Eng. each year instead of twenty as at present and that provision may be made for thirty graduates in chemical engineering to proceed every year to the post-graduate courses in the Technology of Oils, Plastics, Paints, Dyes and Foods. In the plan submitted to the Government of India, it was proposed that the entire teaching of engineering should be carried out in the Department, but a modification is now suggested, according to which the heat engines, electrical engineering and material testing laboratories of the V. J. Technical Institute will be utilized; provided the authorities of the V. J. T. I. agree to this arrangement, a saving of over Rs. 4,00,000 in capital expenditure will be effected. However, the essential part of the scheme of engineering teaching will be that all the lecture and practical work will be in charge of the staff of the Engineering Section of the Department.

The development of the Plastics Section has been included in the development scheme submitted to the Government of India, but an addition which is now suggested is the inclusion of a laboratory with suitable equipment for the testing of rubber goods. The rubber industry has progressed rapidly in the Bombay State in recent years and several manufacturers have expressed the need for a laboratory of the type proposed in this Department, which will be particularly useful to small scale manufacturers. The Plastics Section is already equipped with vulcanizing pans, presses, etc., and a member of the section staff has wide experience of the rubber industry.

The capital and recurring expenditure for the three schemes of development outlined above will be as follows:—

*Capital Expenditure.*

	Rs.
<b>I. B.Pharm. Course :</b>	
<i>Buildings, including furniture and fittings :</i>	
Laboratories for Pharmaceutical Chemistry, Pharmacy and Pharmacognosy	2,00,000
<i>Equipment</i> ...           ...           ...           ...           ...	1,00,000
<b>II. B.Chem. Eng. Course as basis for one-year post-graduate courses in various branches of Chemical Technology :</b>	
<i>Engineering :</i>	
<i>Buildings</i> (workshop and drawing hall—4,000 square feet, with furniture and fittings).	1,00,000
<i>Equipment</i> ...           ...           ...           ...           ...	70,000
<i>Chemistry :</i>	
Laboratory, 7,000 square feet with furniture and fittings.	2,10,000
<i>Equipment.</i> ...           ...           ...           ...           ...	2,25,000



				Rs.	a.	p.	
Dearness Allowance	...	...	...	2,844	0	0	
Provident Fund	...	...	...	1,122	0	0	= 17,898
Consumables	...	...	...				4,000
<i>Chemistry (Inorganic and Physical)—</i>							
Reader in Inorganic and Physical Chemistry	...	...	...	722	0	0	
Two Demonstrators	...	...	...	580	0	0	
Laboratory Assistant	...	...	...	110	0	0	
Hamal	...	...	...	39	0	0	
				<hr/>			
				1,451	0	0	× 12
			=	17,412	0	0	
Dearness Allowance	...	...	...	3,564	0	0	
Provident Fund	...	...	...	1,412	0	0	= 22,388
Consumables	...	...	...				8,000
<i>Physics—</i>							
Reader in Physics in lieu of Lecturer in Colour Physics (difference Rs. 722—522).				200	0	0	
Demonstrator	...	...	...	290	0	0	
Laboratory Assistant	...	...	...	110	0	0	
Hamal	...	...	...	39	0	0	
				<hr/>			
				639	0	0	× 12 =
			=	7,668	0	0	
Dearness Allowance	...	...	...	1,824	0	0	
Provident Fund	...	...	...	600	0	0	= 10,092
Consumables	...	...	...				2,000
I. Rubber Testing	...	...	...	.....			.....
				<hr/>			
				1,55,914	+	28,000	
							= 1,83,914

APPENDIX (j) TO CHAPTER XII,

UNIVERSITY OF BOMBAY.

Designation of Post.	Date of creation quoting reference to Resolution of the authority concerned.	Date of filling of the post.	Pay and allowances with Scale.	Expenditure upto 31st March 1953.	Expenditure from 1st April 1953 to 31st March 1954.	Total expenditure.
1	2	3	4	5	6	7
				Rs. a. p.	Rs. a. p.	Rs. a. p.
<i>Registrar's Office—</i> Typist Clerk ...	... Syndicate Resolution, 12th June 1952.	27th September 1952.	Rs. 75 in the grade of 75—5—140—E.B.—8—220.	511 0 0	1,461 5 0	1,972 5 0
Hamal ...	... Syndicate Resolution, 28th March 1953.	28th March 1953. ...	Rs. 35 in the grade of 35—1/2—40.	.....	816 11 0	816 11 0
<i>University School of Economics and Sociology—</i> Research Assistant in Politics.	Syndicate Resolution, 20th April 1953.	5th October 1953 ...	Rs. 160 in the grade at 160—15—250.	.....	1,047 4 0	1,047 4 0
<i>University Department of Chemical Technology—</i> Assistant Registrar ...	Syndicate Resolution, 19th December 1952.	13th July 1953 ...	Rs. 400 in the grade of Rs. 400—20—500.	.....	3,578 1 0	3,578 1 0
Senior Library Assistant ...	Syndicate Resolution, 29th March 1952.	1st October 1952 ...	Rs. 160 in the grade of 160—10—240.	1,210 1 0	2,923 11 0	4,133 12 0
<i>University Press—</i> Hamal ...	Syndicate Resolution, 26th July 1952.	2nd December 1952	Rs. 35 in the grade of 35—1/2—40.	288 8 0	924 0 0	1,152 8 0
<i>Library—</i> Assistant (unsubstantive and experimental for one year).	3rd August 1953 as per Registrar's letter No. AD-22718, dated 3rd August, 1953.	3rd August 1953 ...	Rs. 75 plus 45 (dearness allowance) in the scale of of 75—5—140—E.B.—6—200.	.....	869 2 0*	869 2 0*
Assistant (Substantive post) .	Vide A. D. 28458 of 3rd October 1953 (Transferred from School of Economics and Sociology.	1st December 1953	Rs. 115 <sup>1</sup> plus 50 (D. A.) 85—5—140—E.B.—6—200.	.....	343 1 0†	343 1 0

\* The amount includes the pay and dearness allowances of the substitute when the Assistant was away on loss of pay.

† The above amount includes the pay and dearness allowance of the Assistant as well as the pay and dearness allowance of the substitute kept after the resignation of the original assistant.

## APPENDIX I.

*Universities.*

Co-ordination of teaching and research facilities provided by the —

## GOVERNMENT OF BOMBAY.

## EDUCATION DEPARTMENT.

Resolution No. U.S.G. 5253

Bombay Castle, 30th November 1953.

Letter from the Director of Education, dated the 21st September, 1953.

RESOLUTION.—The question regarding an investigation into the working and financial position of the various Universities in the State with a view to securing co-ordination of the teaching and research facilities and economy in the administration has been engaging the attention of Government for some time past. Government is, therefore, pleased to appoint an informal Committee consisting of the following persons to go into the following questions and submit a report by the end of February, 1954.

1. Shri N. L. Ahmad, Principal, Elphinstone College, Bombay—*Chairman*.
  2. Shri K. A. Taraporevala, Director of Technical Education.
  3. Shri S. V. C. Aiya, Prof. of Electrical Communications, College of Engineering, Poona.
  4. Shri N. R. Trivedi—*Member-Secretary*.
2. The terms of reference to the Committee will be as follows—
- (1) to examine the lines on which the Universities in the Bombay State have organised and developed their teaching Departments since their establishment and how best to improve them, particularly with a view to securing the co-ordination of teaching and research facilities in the State;
  - (2) to examine whether there has been any, and if so, to what extent, overlapping and duplication in the work of the various Universities and suggest ways and means to eliminate wastage and to secure a proper co-ordination of the educational effort in the academic field;
  - (3) to suggest the manner in which the staff of the Government colleges should be utilised for post-graduate and research work conducted by the Universities concerned;
  - (4) to explore the possibility of placing the superior teaching and research staff employed in Government institutions under the academic control of the Universities concerned with a view to the better and more efficient organisation of post-intermediate and research work;
  - (5) to recommend whether any, and if so, what new Departments under the Faculties of Arts, Science, Technology, etc. should be established by the Universities concerned without increasing to any appreciable extent the financial liability of Government and to suggest whether any, and if so, which teaching and other Departments need to be discontinued by some of the Universities in cases in which such Departments have not been established under the terms of Endowment or Trust Funds; and
  - (6) to suggest the basis and the upper limits of grants for the next three or five years.

By order, etc.

(Signed) A. L. DIAS,  
Secretary to Government.

## II.

No. USG-5253-U.

EDUCATION DEPARTMENT :

Bombay Castle, 16th January 1954.

To

THE CHAIRMAN,

Universities Co-ordination Committee.

*Subject.*—Universities :  
Co-ordination of the teaching and research facilities provided by the —

Sir,

I am directed to refer to items (3) and (4) of the terms of reference mentioned in Government Resolution, Education Department, No. USG-5253 dated the 30th November, 1953, and to state that the intention is that the Committee should go into and report on the question of how best Government could co-operate with the Universities in the matter of organisation and co-ordination of work of Government colleges and that of the Universities, avoiding at the same time administrative difficulties.

2. As regards item (6) of the terms of reference, it is not necessary for the committee to go into the question of upper limits of grants to the Universities. The Committee may, however, examine the local and regional needs of each University in the field of higher education and research, how far these needs have been met by the present teaching staff in the University and the affiliated colleges and make a precise list of teaching appointments to be made by the University for post-intermediate and post-graduate teaching and research on a five year basis.

Yours faithfully,

(Signed) A. L. DIAS,

Secretary to the Government of Bombay, Education Department.

## APPENDIX II.

*Immediate.*

No. S-95/29-A.

Poora-1, 17th December, 1953.

To

THE REGISTRARS OF ALL

Universities in the State of Bombay.

*Subject.*—Universities :  
Co-ordination of teaching and research facilities provided by the —

Sir/Madam,

I have the honour to invite your attention to Government Letter, Education Department, No. USG-5253 U dated 30th November, 1953, addressed to you, enclosing a copy of Government Resolution, Education Department of even number and date, appointing a Committee to go into and to report on the question regarding co-ordination of teaching and research facilities provided by the Universities. In order to examine the question on the lines laid down in the terms of reference to the Committee, it is necessary to have certain information, relating to your University Departments and the figures of receipts and expenditure. I am enclosing herewith two sets of forms with sufficient number of spare copies detailing the information required and I shall be grateful if you will kindly extend your co-operation by supplying the requisite information, so as to reach the Secretary, on or before 20th January, 1954.

2. In addition, the Committee also require —

(i) two copies of the budget estimates of each of the years 1952-53 and 1953-54, along with a statement giving properly separate accounts of capital and recurring receipts and expenditure.

(ii) (a) income and expenditure statements—recurring and non-recurring—in respect of all University Departments together, (b) income and expenditure statements—recurring—in respect of examinations conducted by the University and (c) recurring expenditure in respect of travelling and halting allowances for Meeting of the University Bodies. Two copies of each statement may please be sent.

3. It will assist the work of the Committee if this information is compiled by a special committee appointed in that behalf immediately by the Vice-Chancellor, so that the required material would be ready in time for approval by the relevant authority of the University competent to send a reply to the enclosed questionnaire. This suggestion is made with a view to ensure that the information asked for reaches the Secretary before the due date. Your valuable co-operation in this respect will be highly appreciated.

Yours faithfully,

(Signed) N. R. TRIVEDI,

Member-Secretary,  
Universities' Co-ordination Committee and  
Deputy Director of Education, B.S., Poona.

(P. S.—It may please be noted that all information is to be sent in duplicate).

UNIVERSITIES CO-ORDINATION COMMITTEE.

Serial No. "A" (O).

RETURNS OF DEPARTMENTS OF UNIVERSITIES.

(To be filled in by each University Department.)

Name of the University: \_\_\_\_\_ Name of the Faculty: \_\_\_\_\_ Name of the Department: \_\_\_\_\_

Year of institution of the Department.	Branches of the subject in which provision is made for		Functions of the Department.	
	Post Graduate Teaching.	Research.	Teaching.	Research.
	2	3	4	5

Intermediate ... Master's degree.  
 Post-intermediate ... Doctorate degree.  
 Post-graduate.

(Please strike out what is not applicable).



## I. SOURCES OF RECEIPTS FOR THE DEPARTMENT.

For Non-recurring or Capital Expenditure.						For Recurring Expenditure.				
Specific earmarked Endowments for the Department.	Allotment from unconditional Endowments of the University to the Department.	Government of India, Ministry of Education Grants.	Council of Scientific and Industrial Research Grants.	Grants from Foundations like Rockefeller, British Council.	Special Grants from the State Government, if any.	Any other Grants.	Interest on Endowments for the Department.	Government of India Ministry of Education Grants.	C. S. I. R. Grants and conditions, if any.	Other Grants, if any.
1	2	3	4	5	6	7	8	9	10	11

## II. CAPITAL EXPENDITURE.

Serial No "A(II)"

1	Total Expenditure up to 1950.	Actuals 1951-52.	Actuals 1952-53.	Budgeted 1953-54.	Planned 1954-1959.
1	2	3	4	5	6
1. Building and services ...	..	...			
2. Furniture ...	...	...			
3. Equipment and apparatus ...	...	...			
4. Library ...	...	...			
	Total ...				

## I. SOURCES OF RECEIPTS FOR THE DEPARTMENT.

For Non-recurring or Capital Expenditure.						For Recurring Expenditure.				
Specific earmarked Endowments for the Department.	Allotment from unconditional Endowments of the University to the Department.	Government of India, Ministry of Education Grants.	Council of Scientific and Industrial Research Grants.	Grants from Foundations like Rockefeller, British Council.	Special Grants from the State Government, if any.	Any other Grants.	Interest on Endowments for the Department.	Government of India Ministry of Education Grants.	C. S. I. R. Grants and conditions, if any.	Other Grants, if any.
1	2	3	4	5	6	7	8	9	10	11

## II. CAPITAL EXPENDITURE.

Serial No "A(II)"

1	Total Expenditure up to 1950.	Actuals 1951-52.	Actuals 1952-53.	Budgeted 1953-54.	Planned 1954-1959.
1	2	3	4	5	6
1. Building and services ...	..	...			
2. Furniture ...	...	...			
3. Equipment and apparatus ...	...	...			
4. Library ...	...	...			
	Total ...				

IV. TEACHING STAFF.

Designations.	Name and qualifications (including classes obtained).	Number of lectures per week in periods of mts. each.				Hours per week.				Research.				
		Under-Graduate.		Post-Graduate.		Laboratory work.		Tutorials.		Field work.		Number of students.		
		1953-54	1958-59	1953-54	1958-59	1953-54	1958-59	1953-54	1958-59	1953-54	1958-59	1953-54	1958-59	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Professors	...	.....												
Readers	...	.....												
Lecturers	...	.....												
Demonstrators	...	.....												

(Note.—Details are required for each period in the Department).

## V. (a) UNDER-GRADUATE STUDENTS.

Details.	No. of students in Under-Graduate Classes, if any, conducted by the University.				
	1953-54.		1958-59.		
	1	2	3	4	5
1. Number of fresh admissions ... ..	...	...	...	...	...
2. Number of those continuing from previous years ... ..	...	...	...	...	...
3. Fees per term per student ... ..	...	...	...	...	...

*Note.*—The information should be given subject-wise.

## V. (b) POST-GRADUATE STUDENTS.

Details.	Number of students in Post-Graduate Classes, conducted by the University.		Research students under the Department, if any.	
	1953-54.	1958-59.	1953-54.	1958-59.
	1	2	3	4
1. Number of fresh Admissions				
2. Number of those continuing from previous years				
3. Fees per term ...				
4. Endowed Scholarships, Number and value of each.				
5. Endowed Fellowships, Number and value of each.				
6. Scholarships awarded from University funds ...				
7. Fellowships awarded from University funds ...				

## VI. GENERAL.

*Note.—If the space provided is not adequate, please attach separate sheets and give reference to the Serial No. and the Question No.*

Questionnaire.	Replies.
1	2
1. Is there a Government College in your University Centre teaching the subject? If so, can the services of your staff be made available for doing some of the teaching work there? Is it possible for you to make use of the teaching staff in the Government Colleges to some extent for University teaching and research? If so, to what extent? If any attempts have been made in this direction, please give details.	
2. Have any attempts been made to explore the possibilities of co-ordination with non-Government Colleges on the lines stated in 1 above?	
3. Would it be possible to utilise the laboratories and libraries of Government or non-Government Colleges for post-graduate teaching and research of the University or of the University laboratories for degree teaching of the Colleges either partially or wholly? Please offer your suggestions.	
4. Is the Department of any special significance for the region in which the University is situated?	
5. Is there any pooling of the fees for this Department and its redistribution to Colleges on a certain basis at any stage? If so, the same may be mentioned here. [This is not to be shown in "A (III) (10)".]	
6. Are post-graduate teachers employed in Colleges paid any specific individual remuneration from the funds of the University? If so, please give details. [This is not to be included in "A (III) (9)".]	
7. Any other remarks	.. ..

Serial No. "B".

*Note.—If the space provided is not adequate, please attach separate sheets and give reference to the Serial No. and the Question No.*

Questionnaire.	Replies.
1	2
1. If there is the nucleus of a department doing teaching up to the degree stage in a Government College in your University Centre, would your University be agreeable to utilising the same for post-graduate teaching and research if the academic control of the department is vested with the University?	
2. Is your University in favour of co-ordination between the Universities of the State for post-graduate teaching and research? Thus, if one University specialises in Physical Chemistry, another may specialise in Organic Chemistry and so on.	

Questionaire.	Replies.
1	2
3. Has your University any definite plan for limiting the number of subjects in which post-graduate teaching and research facilities are to be offered; and the sub-branch or branches of each subject in which only, specialisation is to be provided for?	
4. Does your University propose to establish any new Departments during the next five years? If so, please state the need for the same after taking into account the available facilities in the State of Bombay. The estimates of the capital and recurring expenditure, etc., may be furnished. The source of income for financing the project should also be indicated.	
5. Does your University subscribe to the view that the twin functions of advanced teaching and research should go together as a well knit unit? If not, do you advocate having separate persons fully engaged in teaching alone or research alone?	
6. Has your University any plan for developing the Regional Language or Hindi with a view to making it serve as a medium of instruction at the University stage?	
6a. Has your University any plans for the integrated development of Indian Languages?	
7. Are there any courses of study of special significance to your University which cannot be started for want of finance?	
8. Are there any facilities, e.g., laboratories or libraries in the region of your University which are not fully utilised? If so, whether your University has any plans for utilising the same and whether there are any difficulties in the way?	

## APPENDIX III.

## POONA UNIVERSITY.

Thursday, 18th February 1954	.. Work at the University Office and visit to buildings on the University Campus.
Friday, 19th February 1954	.. Meeting Professors and others on behalf of the University.
Saturday, 20th February 1954	.. Visits to University Centres outside the University Campus.

*Names of representatives who met us on behalf of the University.*

1. Lt.-Col. R. D. Karmarkar.
2. Prof. D. R. Gadgil.
3. Shri V. D. Ghate.
4. Prof. S. G. Hulyalkar.
5. Prin. N. G. Suru.

Lt.-Col. R. D. Karmarkar, Dean of the Faculty of Arts, and Prof. B. V. Bhide took the members of the Committee round the Departments of the University.

The Committee also discussed matters pertaining to the University with Dr. M. R. Jayakar, Vice-Chancellor, Poona University.

The Committee also discussed the question of co-ordination with Dr. S. M. Katre, Director of the Deccan College Post-graduate and Research Institute and Dr. S. P. Agharkar, Director, Maharashtra Association for the Cultivation of Science, Poona.

## KARNATAK UNIVERSITY.

Monday, 22nd February 1954

.. Meeting with Shri C. C. Hulkoti, Vice-Chancellor, and the following representatives who met us on behalf of the University:—

1. Prin. Y. K. Gokak.
2. Prin. C. S. Paramasivayya.
3. Prof. V. V. Jattai.
4. Shri H. F. Kattimani.

Visit to buildings on the University Campus.

Tuesday, 23rd February 1954

.. Discussion with the following representatives of the University:—

1. Dr. K. S. Nargund.
2. Prof. S. S. Malwad.
3. Dr. N. R. Tawde.
4. Prin. S. W. Mensinkai.
5. Prof. B. B. Bagi.
6. Prof. T. N. Srikanthayya.
7. Prof. N. U. Prabhu.
8. Prof. C. D. Deshpande.

Visit to Karnatak College buildings.

Wednesday, 24th February 1954

.. Visit to University Office.

## GUJARAT UNIVERSITY.

Tuesday, 9th March 1954

.. Visit to—

- The Physical Research Laboratory, Ahmedabad.
- Atira Laboratory.
- L. D. College of Engineering, Ahmedabad.
- B. J. Institute of Learning and Research.
- B. J. Medical College.

Wednesday, 10th March 1954

Visit to—

- V. S. Hospital.
- Gujarat College.

Discussion with the following representatives who met us on behalf of the University—

- Shri Harasiddhabhai V. Divatia, Vice-Chancellor.
- Dr. K. G. Naik.
- Prin. A. K. Trivedi.
- Dr. M. D. Patol.

The Committee also discussed the question of co-ordination with Dr. K. Ramanathan, Shri Vikram Sarabhai, Shri Rasiklal C. Parikh.

## THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA.

Thursday, 11th March 1954

... Visit to—

- (1) Faculty of Arts,
- (2) Intermediate College,
- (3) Shri Manubhai Mehta Hall, and
- (4) Maharshi Arvind Hall.

Friday, 12th March 1954

... Visit to—

- (1) Faculty of Science,
- (2) Faculty of Commerce,
- (3) Faculty of Home Science, and
- (4) Sarojini Devi Hall.

Saturday, 13th March 1954

... Visit to—

- (1) Faculty of Fine Arts (including Museology),
- (2) College of Indian Music, Dance and Dramatics,
- (3) Oriental Institute, and
- (4) Faculty of Technology (including Engineering).

Sunday, 14th March 1954

... Visit to—

- (1) Faculty of Social Work,
- (2) Faculty of Education and Psychology, and
- (3) Baroda Sanskrit Mahavidyalaya.

Monday, 15th March 1954 ... Representatives on behalf of the University who met the Committee :—  
 1. Dr. C. S. Patel, Pro-Vice-Chancellor.  
 2. Prof. T. K. Menoh.  
 3. Prof. V. Y. Kolhatkar.  
 4. Prof. D. Subbarao.  
 5. Dr. (Miss) P. Vakharia.  
 Visit to Social Work Centres at Atladra and Bil.

## BOMBAY UNIVERSITY.

Wednesday, 31st March 1954 ... Visit to—  
 Department of Chemical Technology, Matunga.

Thursday, 1st April 1954 ... University School of Economics and Sociology,  
 Bombay.  
 Department of Statistics, Bombay University.

Friday, 2nd April 1954 ... Meeting with the Committee of the Bombay  
 University—  
 1. The Vice-Chancellor.  
 2. Prof. C. N. Vakil.  
 3. Dr. G. S. Ghurye.  
 4. Dr. K. Venkataraman.  
 5. Shri M. C. Chakrabarty.  
 6. Dr. K. P. Mukerji,  
 7. Shri D. N. Marshall.  
 8. The Registrar (Shri S. R. Dongerkery).

## S. N. D. T. WOMEN'S UNIVERSITY.

Monday, 5th April 1954 ... Discussion with the Registrar, S. N. D. T. Women's  
 University.  
 Meeting with the representatives of the University—  
 Shri K. C. Desai, and  
 Shri P. G. Shah.

*Statement showing Information about Meetings of the Universities Co-ordination Committee.*

No. of Meetings.	Place of Meeting.	Date on which held.	Timings.	Purpose.
1st Meeting	Elphinstone College, Bombay.	10th December 1953.	11-0 a.m. to 4-0 p.m.	To draw up a plan of work relating to co-ordination of teaching and research facilities provided by the Universities.
2nd Meeting	Do.	23rd December 1953.	11-0 a.m. to 2-30 p.m.	Further discussion regarding the plan of work.
3rd Meeting	Office of the Director of Education, Poona.	17th February 1954.	2-0 p.m. to 6-0 p.m.	To consider the information received from the Poona and Karnatak Universities.
4th Meeting	Elphinstone College, Bombay.	3rd April 1954.	10-0 a.m. to 1-0 p.m. and 2-30 p.m. to 4-30 p.m.	To consider the further information received from the Universities (except Bombay and S. N. D. T.) after personal discussion with the Heads of different Departments and Deans of Faculties of the Universities and the representatives of the Universities.



No. of Meeting.	Place of the Meeting.	Date on which held.	Timings.	Purpose.		
5th Meeting	... Elphinstone College, Bombay.	10th June 1954	12-00 noon to 6-00 p.m.	Discussion of the Draft Report circulated by the Secretary to the Members.		
		11th June 1954	9-00 a.m. to 1-00 p.m.			
		12th June 1954	and 2-30 p.m. to 6-00 p.m.	Do.		
		13th June 1954				
6th Meeting	... Do.	... 18th June 1954	9-00 a.m. to 1-00 p.m. and 2-30 p.m. to 5-30 p.m.	Do.		
			10th June 1954	9-00 a.m. to 1-00 p.m. and 2-30 p.m. to 4-30 p.m.	Do.	
		7th Meeting	... Elphinstone College, Bombay.	23rd June 1954	11-00 a.m. to 6-00 p.m.	Do.
				24th June 1954	9-00 a.m. to 1-00 p.m. and 3-00 p.m. to 6-00 p.m.	Do.
25th June 1954	12-00 noon to 4-30 p.m.	Do				
8th Meeting	... Office of the Director of Education, Poona.	30th June 1954	2-00 p.m. to 6-00 p.m.	To consider letters received from Government in the E. D., Bombay and the D. E., Poona.		
		1st July 1954 ...	11-00 a.m. to 2-00 p.m.		Do.	
9th Meeting	... Elphinstone College, Bombay.	26th July 1954	11-00 a.m. to 6-00 p.m.	Discussion of the second Draft Report circulated by the Secretary to the Members. Preparation of the final draft incorporating the amendments made.		
		27th July 1954	12-00 noon to 3-00 p.m. and 5-45 p.m. to 8-30 p.m.		Do.	
		28th July 1954	11-00 a.m. to 6-00 p.m.	Do.		

No. of Meeting.	Place of the Meeting.	Date on which held.	Timings.	Purpose.
10th Meeting ...	Elphinstone College, Bombay.	6th August 1954.	11-00 a.m. to 5-30 p.m.	Discussion of the second Draft Report circulated by the Secretary to the Members. Preparation of the final draft in incorporating the amendments made.
		7th August 1954.	9-00 a.m. to 12-00 noon and 2-00 p.m. to 4-30 p.m.	Do.
11th Meeting ...	Do.	20th August 1954.	11-00 a.m. to 4-30 p.m.	Do.
12th Meeting ...	Office of the Director of Education, Poona.	28th August 1954.	1-00 p.m. to 2-30 p.m.	To approve the Report finally.

*Statement showing the rates of tuition fees per term charged by Colleges and Universities in the State of Bombay for degree and post-graduate students.*

Name of University.	1st Degree.	M.A.	M.Sc.	Remarks.
Bombay ...	.....	Rs. 60 Rs. 114 Economics and Sociology. Rs. 125 Statistics.	... Rs. 100	
Poona ...	Rs. 110 B.A. Rs. 135 B.Sc. Rs. 150 B.T. Rs. 122 B.Com. (1st Term). Rs. 110 B.Com. (2nd Term).	... Rs. 100	... Rs. 150 [also for B.Sc. (Hons.)].	
M. S. University of Baroda.	Rs. 90 B.A. ... Rs. 90 plus 40 Lab. B.Sc. Rs. 120 B.Ed. Rs. 100 B.Com. Rs. 50 plus 20 Lab. Home Sc. Rs. 50 plus 20 Lab. Fine Arts. Rs. 50 plus 20 Lab. Music. Rs. 50 Social Work.	... Rs. 60 (M.A., Ph.D.)	Rs. 75 and Rs. 60 [M.Sc., (Maths.)]	
Gujarat ...	.....	Rs. 60	... Rs. 75	
Karnatak ...	.....	Rs. 75	... Rs. 100	
S.N.D.T. Women's University.	.....	Rs. 85 (including Gymkhana and extra curricular).	.....	

APPENDIX V.

Statement showing the Scales of Pay of the University Staff.

Designation of the post.	Poona University.	Karnatak University.	Gujarat University.	M. S. University of Baroda.	Bombay University.	S. N. D. T. Women's University.	Scales recommended by the Radhakrishnan Commission.	Pay scales in Government Colleges.	Pay Scales proposed by the Universities Co-ordination Committee.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Professors	... 500—20— 600.	600—50— 1,100.	800—50— 1,250.	700—50— 1,000.	800—50— 1,250+ Rs. 250— 50—500 for the Directors of the Schools of Econ. and Techn.	300—10— 500.	900—50— 1,350.	B. E. S. Cl. I : Rs. 350—20— 650— E.B.—45— 1,100. G. S. S.-Posts : 600—40 1,000—50— 1,100.	800—40— 1,000—50— 1,250.
Readers	... 350—15— 500.	300—25— 650.	400—30— 700.	400—25— 700.	500—25— 900.	.....	600—30—900	.....	500—20—800
Assistant Professors	... ..	.....	.....	.....	.....	200—10— 350.	.....	.....	400—25— 650.
Lecturers	... 250—10— 400.	250—15— 400	250—25— 500.	300—15— 450. (Senior Lecturers).	300—25— 600.	Rs. 150 Fixed.	300—25— 600	B. E. S. Cl. II : 220—15— 400— 500— E.B.—20— 500— E.B.—25— 650.	250—25— 500
Junior Lecturers or Tutors.	.....	.....	.....	200—15— 350 (Junior Lecturers) 100—10— 200 (Tutors).	.....	.....	.....	B. E. S. Class III : 160—10— 250 (Assistant Lecturers).	200—15— 350.

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