



GOVERNMENT OF KERALA

ADMINISTRATION REPORT
OF THE
TECHNICAL EDUCATION

FOR THE YEAR 1984-85

1987/88

1989/90

**ADMINISTRATION REPORT
OF THE
TECHNICAL EDUCATION**

FOR THE YEAR 1984-85

184/781-1

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Government of Kerala
1986



HIGHER EDUCATION (G) DEPARTMENT

G. O. (P) 141/85/H. Edn. Dated, Trivandrum 15th June 1985.

Abstract:—Education—Technical—Administration report of Technical Education Department for the year 1984-85—Reviewed.

Read:—Letter No. C4/7541/85, dated 27-4-1985 from the Director of Technical Education.

ORDER

1. Recorded,
2. Dr. P. J. George, continued as Director of Technical Education. Sri T. M. Philip was the Administrative Officer upto 9/84 and thereafter Sri R. Kerala Varma Thirumulpad is continuing as administrative Officer.
3. The Office of the Director of Technical Education was functioning in the Padmavilasom Palace, Fort, Trivandrum.
4. The following Institutions functioned under the direct control of the department.

| Sl. No. | Category | Management | | | Total | Remarks/share of new additions |
|---------|---|------------|---------|-------------|-------|--------------------------------|
| | | Govt. | Private | Quasi-Govt. | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 1 | Engineering Colleges | 2 | 3 | 1 | 6 | .. |
| 2 | Polytechnics | 14 | 6 | .. | 20 | 2 |
| 3 | Women's Polytechnics | 4 | .. | .. | 4 | .. |
| 4 | Institute of Printing Technology | 1 | .. | .. | 1 | .. |
| 5 | Food Craft Institute and Extension Centre | .. | .. | 3 | 3 | .. |

| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
|-------|---|-----|-----|-----|-----|-----|
| 6 | College of Fine Arts | 1 | .. | .. | 1 | .. |
| 7 | Institute of Fine Arts | 2 | .. | .. | 2 | .. |
| 8 | Commercial Institutions | 14 | .. | .. | 14 | 6 |
| 9 | Junior Technical Schools | 34 | .. | .. | 34 | .. |
| 10 | Pre-vocational training Centres | 19 | .. | .. | 19 | .. |
| 11 | Government Industrial Schools | 2 | .. | .. | 2 | .. |
| 12 | Vocational Training Centre | 5 | .. | .. | 5 | .. |
| 13 | Tailoring Training Centre | 7 | .. | .. | 7 | .. |
| 14 | T. G. M. T. Centres | 31 | .. | .. | 31 | .. |
| 15 | Tailoring Trade Schools | 2 | .. | .. | 2 | .. |
| 16 | Technical Teachers Training Extension Centres | .. | .. | 1 | 1 | .. |
| 17 | Others | .. | .. | 2 | 2 | .. |
| Total | | 138 | 9 | 7 | 154 | 8 |

5. The state Board of Technical Education and Board of Studies in Engineering and Technology were functioning during the year under review."

The salient features of intake is given below:

| Category | Intake |
|---|--------|
| Engineering Colleges (Under graduate courses) | 1765+ |
| R. E. C. | 210 |
| Total | 1975 |
| Post-graduate courses | 128 |
| Part-time Degree Courses | 205 |
| College of Fine Arts (degree course) | 45 |

Polytechnics:

| | |
|--|------|
| Post Diploma Course | 50 |
| Diploma courses | 3333 |
| Part time Diploma courses | 231 |
| Certificate Course in textile Technology | 60 |

Junior Technical Schools:

| | |
|----------------------------------|------|
| J. T. S. L. C. Course | 2200 |
| Plus two level vocational course | 760 |
| Craft courses in Polytechnics | 36 |
| Fine Arts Institute Courses | 60 |
| Food Craft Institutes Courses | 180 |

| Category | Intake |
|---|--------|
| Commercial Institute Diploma Courses | ± 0 |
| One year Technical Courses of Post S.S.L.C. level | 180 |
| Tailoring and Garment Making Training courses | 740 |
| Other Craft Courses | 130 |

6. The details of Scholarships/Stipend granted to students of various Institutions were as follows:

| Category of Institution | No. of Institution | Scholarships | | Stipend | |
|---|--------------------|-----------------|----------------|-----------------|----------------|
| | | No. of students | Amount (lakhs) | No. of students | Amount (lakhs) |
| 1 Government Engineering Colleges | 2 | 487 | 14.43 | 2185 | 9.78 |
| 2 Private Engineering Colleges | 3 | 280 | 3.69 | 730 | 7.90 |
| 3 Government Polytechnics | 13 | 35 | 0.35 | 1910 | 13.60 |
| 4 Private Polytechnics | 6 | 25 | 0.25 | 1640 | 12.75 |
| 5 Women's Polytechnics | 4 | 35 | 0.17 | 615 | 1.77 |
| 6 Junior Technical Schools | 34 | 395 | 1.10 | 690 | 4.22 |
| 7 Pre-vocational Training Centre | 19 | .. | .. | 498 | 1.58 |
| 8 College of fine Arts | 1 | . | . | 74 | 0.43 |
| 9 Fine Arts Institutions | 2 | . | 0.01 | 64 | 0.30 |
| 10 Food Crafts Institute | 3 | .. | . | 95 | 0.59 |
| 11 Government Commercial Institution | 8 | .. | .. | 16 | 0.08 |
| 12 Tailoring & Garment making Training Centre | 25 | .. | . | 85 | 0.80 |
| 13 Vocational Training Centre | 12 | .. | .. | 30 | 0.20 |

7. The total provision under the State Plan for the Department during the year 1984-85 was Rs. 234.00 lakhs of which Rs. 48.25 lakhs were for works. This fund under works was operated by the Public Works Department. Hence the real provision for the Department excluding works comes to Rs. 185.75 lakhs.

8. The total expenditure (tentative) under the State Plan till the end of March 1985 was Rs. 353.30 lakhs of which Rs. 58.42 lakhs were for works. The percentage of expenditure out of the total provision of Rs. 234.00 lakhs was 150.98.

9. The total expenditure excluding works under the provision of Rs. 185.75 lakhs was Rs. 294.88 lakhs and the percentage was 158.75.

10. Under the Centrally sponsored scheme the total provision was Rs. 60.00 lakhs and the expenditure (tentative) comes to Rs. 74.44 lakhs (124.06%).

11. The total expenditure (tentative) under the Non-Plan category is Rs. 637.04 lakhs against a provision of Rs. 630.21 lakhs.

12. The following were some of the major achievements during the period under review:

During the year 1984-85 there has been a marked progress in the field of Technical Education in Kerala. This progress can be seen in all areas from the level of Post Graduate Education down to job oriented/self-employment oriented training Programmes specially organised for Harijans. In spite of severe financial restrictions, it was possible to start a few new Technical Institutions in unrepresented areas to introduce new courses in emerging areas of technology and to open the first stage of the Kerala Science and Technological Museum. It was also possible to initiate action for the "Priyadarshini" Planetarium in the Science and Technology Museum Campus. A high level discipline was maintained in all campuses with resulting improvements in examination results.

New Technical Institutions

13. Two Government Polytechnics, one at Palai in Kottayam District and the other at Vennikulam in Pathanamthitta District were started during the year. Electronics, Instrumentation and Computer Science are the new courses started in these Institutions.

14. Sanction was given for the starting of an Extension Centre of the Food Craft Institute at Kottayam. It is anticipated that a major part of expenditure for the Institution can be obtained from Government of India.

15. Further, Government Commercial Institutes at Punalur, Ettumanoor, Kothamangalam, Mala, Kalpetta and Thaliparamba started functioning during the year.

New Courses

16. Sanction was given for the starting of a Part-time evening M.B.A. Course at the College of Engineering, Trivandrum.

17. Degree courses in "Computer Science" were started at College of Engineering, Trivandrum, Engineering College, Trichur and T.K.M. College of Engineering, Quilon.

18. With cent percent Government of India Assistance, two Post-graduate courses at Regional Engineering College, Calicut and one P. G. Course at T.K.M. College of Engineering, Quilon were started during the year.

19. A Diploma course in "Automobile Engineering" was started at S. S. M. Polytechnic, Tirur.

20. A one year Post-Diploma course in "Television Engineering" and 18 months Post-Diploma course in "Computer Application" was started at Central Polytechnic, Trivandrum. A major share of expenditure for the Computer course is met by the Central Government.

21. Diploma courses in "Commercial Art" were started at Institute of Fine Arts at Mavelkkara and Trichur.

22. A Post-Diploma course in "Industrial Safety" was started at Kalamassery, for the benefit of the employees of the Industries

23. For creating job opportunities among Women, One year training courses in "Cosmetology and Beauty Parlour Management" were started at Kalamassery and Kottayam.

24. A part-time Evening Diploma course in Textile Technology was started at Central Polytechnic, Trivandrum.

Short-term Courses and Training Programmes

25. As a part of the programmes during the "Scheduled Caste/Scheduled Tribe Year", the Department in collaboration with Lal Bahadur Shastri Engineering Research and Consultancy Centre, gave training to about 500 Scheduled Caste/Scheduled Tribe youths, in various modern technology and trades.

26. In addition to this, various courses in Computer Programming Computer application course for the final year students of Engineering Colleges, training programme in "Micro-Processor" for students in Womens' Polytechnics, Training course in "Modern Office Equipment" for the employed women were also conducted by the Lal Bahadur Shastri Engineering Research and Consultancy Centre. More than 400 persons were benefited by these programmes.

Kerala State Science and Technology Museum

27. The first stage of the "Kerala State Science and Technology Museum" was inaugurated in July, 1984. This project which will be costing more than Rs. 10.00 crores and designed with 12 Science and Technology Galleries, is expected to be completed in the next five years. "Priyadarshini Planetarium"—a major part of the Museum will be completed expeditiously. This planetarium controlled by a computer and with 150 special effect arrangements can accommodate about 300 persons at a time.

Vocational Education

28. At the Higher Secondary level Vocational Education was introduced in 11 more Junior Technical Schools.

Regional Engineering College, Calicut

29. A new building for the Electronics Department was completed. A degree course in "Production and Industrial Engineering" was started. Sanction was also accorded for the starting of courses in "Computer Science" and Architectural Engineering and to increase intake from 250 to 350 from 1985 admission onwards.

Regional Office

30. The Regional Office of the Department started functioning at Calicut and Kothamangalam during the year. These offices are headed by Joint Directors.

Lal Bahadur Sastri Engineering Research and Consultancy Centre, Shasthamangalam

31. During the year 1984-85 the activities of Centre were developed and extended to various fields. A computer costing Rs 15.00 lakhs was installed and more than 1500 educated people were given training in Computer programming. Various Government Departments were given technical advice on Computer applications and the work relating to Computer applications were also taken by the Centre. In addition to the usual consultancy work, the centre has taken up the repair and maintenance of the sophisticated instruments. Steps were also taken for the construction of building for the Centre at Kalamassery and Trivandrum. The Centre had given training in modern technology and instruments, to about 200 Engineering degree students, 60 Women's Polytechnic students, 350 Scheduled Caste/Scheduled Tribe youths and 100 employed women.

Computer Centres

32. Computer Centres costing Rs. 7.00 lakhs to Rs. 15.00 lakhs were installed in all the six Engineering Colleges with the financial assistance of Government of India. Supply orders were also given for the purchase of computers to the three Women's Polytechnics, Central Polytechnic, Trivandrum and Government Polytechnic, Palai. Mini-Computers each costing over Rs. 2 lakhs were provided to all departments of the College of Engineering, Trivandrum. The students in various Technical courses can understand the influence of Computer age and also experience the computer usage through these Centres.

Water Resources Management Centre

33. A "Water Resources and Management Centre" started functioning in the College of Engineering, Trivandrum with cent percent financial assistance of Government of India. The main function of the centre is the study and research of various water resources and its efficient usages.

Examination Results and other Activities

34. In General, discipline and enthusiasm were seen in the academic field. The department was able to conduct the Diploma Examinations and publish the result within the scheduled time. Compared to the previous years' results there was an increase of 15% in the percentage of pass.

35. The Silver Jubilee of Junior Technical Schools, Manjeri, Shoranur and Kunnankulam were celebrated during the year. Both the Youth Festivals were conducted in a well disciplined manner.

Industrial Liaison Board

36. For the promotion of understanding, Co-operation and liaison among the technical institutions and industrial institutions, an "Industrial Liaison Board" was constituted under the Chairmanship of the Hon'ble Minister of Education. More than 20 top officials from the various Industries are members of the board. The first meeting of the Board was held in November, 1984, and was decided to take steps for the co-operation and help of industries in the conduct of technical Education.

State Board of Technical Education

37. The Government of Kerala have reconstituted the State Board of Technical Education for a period of 3 years from 22-10-1984 with 60 eminent members from among Science, Technology Educational, Industrial and administrative fields and the Minister of Education is the Chairman of the Board.

38. The total outlay (both plan and non-plan) come to Rs. 868.21 lakhs. During the year under report the total expenditure (tentative) come to Rs. 990.34 lakhs. The amount provided under the plan was for the various schemes of development activities of technical Education. The amount under non-plan was mainly for the salaries and the expenses for staff and related activities.

39. The working of the Department during the year under review was on the whole satisfactory.

By order of the Governor,
M. S. K. RAMASWAMI,
Commissioner and Secretary.

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SYNOPSIS

The Department of Technical Education comes under the Ministry of Education of the Government of Kerala. The Department is headed by the Director of Technical Education and the functions under instructions from the Ministry.

The Co-ordination of the State Level Technical Education is vested with the State Board of Technical Education and academic matters are dealt with by the Board of Studies in Engineering and Technology.

The Department of Technical Education has control over 6 Engineering Colleges, 24 Polytechnics, One Institute of Printing Technology, 34 Junior Technical Schools, 3 Food Craft Institutes, 3 Fine Arts Institutions, 14 Government Commercial Institutions (including one Institute for P. T. Diploma Course), 35 Government Industrial Schools/T. G. M. T. Centres, 13 Government Vocational Training Centres and 19 Pre-Vocational Training Centres. This includes about 30 Institutions started during the last 3 years. Apart from those Institutions there are two autonomous Institutions the Lal Bahadur Sastri Engineering Research and Consultancy Centre and the Kerala State Science and Technology Museum. The Regional Engineering College, Calicut and the Food Craft Institutes at Kalamassery, Calicut, Trivandrum and Kottayam are also autonomous Institutions with the Minister for Education as Chairman.

There are also about 332 Industrial Schools and 126 Engineering Institutions under the Private Sector which are recognised by the Department

The Directorate commands a Man Power strength of 5772 by way of teaching staff, Technical supporting staff, Administration staff and allied staff. The total intake of students exclusive of admission in Junior Technical School is over 6600 and over 24,000 students are otherwise benefited at certificate level including 2200 students admitted to Junior Technical Schools. All Engineering Colleges and almost all Polytechnics except the newly started ones are provided with hostel facilities and sufficient library facilities.

The total provision under the State Plan runs to Rs. 234.00 lakhs inclusive of the share operated by the P. W. D. (Rs. 48.25 lakhs). The provision under non-plan is Rs. 630.21 lakhs.

The tentative expenditure during the period 1981-85 show 150.98% in the plan provisions (Rs. 353.30 lakhs). During the same period, the tentative non-plan expenditure comes to Rs. 637.04 lakhs.

The year under report had been comparatively rich in activities. 1790 students were admitted to the Degree Courses in various Engineering Colleges and 3333 students for Diploma Courses in various Polytechnics. Also the needs of about 7300 students studying

for the K.G.C.E. Examinations and over 13600 students of K.G.T.E. Courses studying in provisionally recognised Institutions have been undertaken by the Department

Academically, apart from existing conventional Education in Engineering Colleges and Polytechnics, new courses have been started in emerging areas. This applies to Institutions of other lower categories also

The Institutions provide instructions in Degree, Diploma, Post-Graduate and Post-Diploma levels on a regular and Part-time basis. Part-time courses are restricted to a few Institutions and Courses. The Silver Jubilee celebrations of Junior Technical Schools, Manjeri, Shoranur and Kunnankulam were celebrated during the year.

There is considerable growth at all of Technical Education in the year 1984-85. Substantial growth is registered at academic level in the quality of Education, number of courses and number of Institutions. With cent percent Central Assistance two P. G. Courses at Regional Engineering College, Calicut and one P. G. course at T. K. M. College, Quilon were started. New Degree course in "Computer Science" was introduced at Engineering College, Trivandrum, Trichur and Quilon. Diploma Courses in "Automobile Engineering" was started at S.S.M. Polytechnic, Tirur, one year Post-Diploma Course in "Television Engineering" and 18 months Post-Diploma Course in "Computer Applications" were started at Central Polytechnic, Trivandrum. A Post-Diploma course in "Industrial Safety" was started at Kalamassery for the benefit of "Industrial Employees". One Year Training course in "Cosmatology and Beauty Parlour Management" was started at Kalamassery and Kottayam. New Polytechnics were started at Palai and Vennikulam. New Commercial Institutions at Punalur, Ettumanur, Kothamangalam, Mala, Kalpetta and Taliparamba started functioning during the year. An extension centre of Food Craft Insitute was sanctioned at Kottayam.

Vocational Education at Ten plus Two level was introduced in 11 more Junior Technical Schools in the State. Under the special component plan, free supply of Text Books and Teaching aids were continued. Special coaching scheme for weaker students was implemented in all Institutions. Specialised training in Toy Making was arranged for Harijan Girls at Trivandrum, Calicut and Trichur. Regional Centres of the Directorate sanctioned at Calicut and Kothamangalam started functioning.

There was an alround improvement of discipline, efficiency and activities in all Institutions under the Department during the year 1984-85. The Engineering Diploma Examination result showed an increase of 12% over the previous year's results.

1. ORGANISATION STRUCTURE

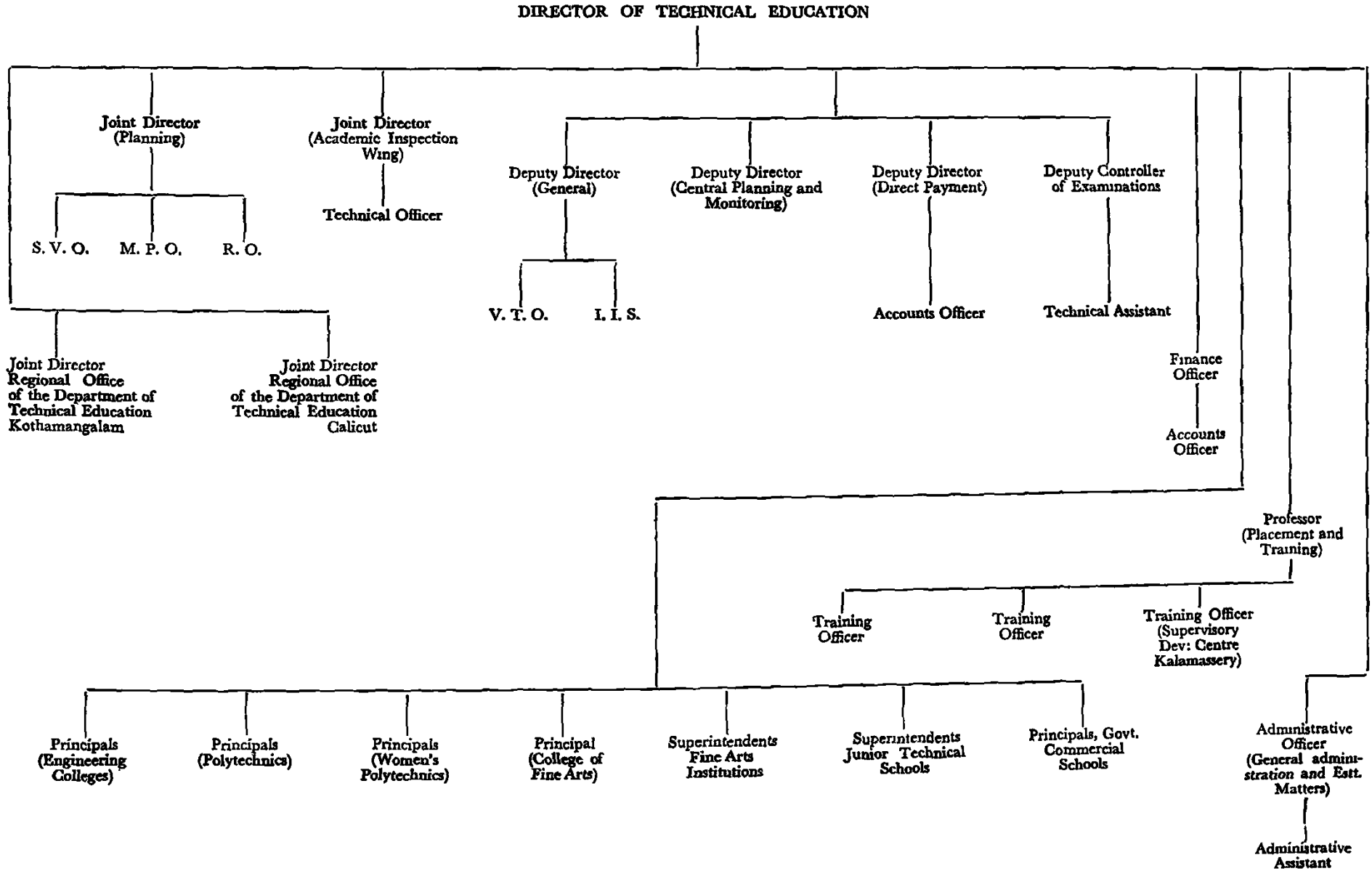
The Organisation of the Department of Technical Education has its history traceable to 1957. Till then the Technical Institutions were controlled by the University and the Department of Industries and Commerce.

The Technical Education is at present co-ordinated by the State Board of Technical Education. Academic matters come under the purview of Board of Studies in Engineering and Technology.

At present the Department comes under the Ministry of Education, Government of Kerala. The Department has at the apex of the Hierarchy the Hon. Minister for Education. The communication and decision making channels are through the Secretary to Government to the Director of Technical Education.

The Organisation structure is shown in figure. The Directory of Personnel and the Appendix those follow indicate the role of the controlling authorities attached to this Department.

FIG: 1—ORGANISATION OF THE DEPARTMENT OF TECHNICAL EDUCATION



S. V. O.—Stock Verification Officer. M. P. O.—Man Power Officer. R. O.—Research Officer. V. T. O.—Vocational Training Organiser. I. I. S.—Inspector of Industrial Schools.

2. THE DEPARTMENT IN 1984-85

2.1. Introduction

The Department of Technical Education, Government of Kerala was started in 1957. There were only one Engineering College and Polytechnics to begin with. Today, the Department has grown into a crucial organisation in the field of professional education and training. Six Engineering Colleges, 24 Polytechnics, 34 Junior Technical Schools and 82 other Technical Institutions at various levels meet the demands of Kerala.

State Board of Technical Education with the Minister of Education as the Chairman and Director of Technical Education as the Convener advise the Government and the Department in matters connected with technical education. Advice on academic matters is sought from the Board of studies in Engineering and technology. The lists of members of these bodies are appended in appendix-I and 2.

2.2. Objectives/Functions

1. Impart technical education through the various institutions.
2. Selection of students for different courses and allotment to different Institutions.
3. Formulation and implementation of Plan Schemes.
4. The disbursement of grants to Private Engineering Colleges and Polytechnics after assessing the eligibility for the same.
5. Payment of pay and allowances to the staff of private engineering Colleges and Polytechnics.
6. Distribution of Scholarships to the deserving and eligible students.
7. Conduct of inspection to assess the eligibility for recognition of private Engineering, Industrial and Tailoring Institutions and granting the recognition.
8. Conduct of Diploma examination in all Engineering subjects.
9. Monitoring and Implementation of Plan scheme.
10. Planning and implementing a Science and Technology Museum to generate science and technology consciousness amongst People.

2.3. Resources

2-3-1. Personnel:

Table I below gives the Directory of personnel during the administrative year.

TABLE I

| <i>Sl. No.</i> | <i>Name</i> | <i>Office held</i> | <i>Remarks</i> |
|----------------|--------------------------------------|--|----------------|
| 1. | Dr. P.J. Groege | Director | |
| 2. | Shri C.I. Mathew (upto 12/84) | Joint Director (Planning) | |
| | Shri C.N. Rajan (from 1/84) | do. | |
| 3. | Dr. S. Hariharan (upto 9/84) | Joint Director (Academic Inspection Wing) | |
| | Prof. Baburaj Praseedom | do. | |
| 4. | Dr. K. Ramachandran | Professor of Placement and Training | |
| 5. | Shri T.M. Philip (upto 9/84) | Administrative Officer. | |
| | Shri R. Kerala Varma Thirumulpad | do. | |
| 6. | Dr. S. Narayanan | Deputy Director (D.P.) | |
| 7. | Shri C.N. Rajan (upto 9/84) | Deputy Director (General) | |
| 8. | Shri P.S. Aravindakshan (upto 12/84) | Dy. Director (Monitoring) | |
| | Shri N. Ganapathy Iyer | do. | |
| 9. | Shri K P. Hamza | Dy. Controller of Tech Examinations | |
| 10. | Shri P. Joseph | Finance Officer | |
| 11. | Shri N.E. Skariah | Administrative Assistant | |
| 12. | Shri P.K. George | Research Officer | |
| 13. | Shri R. Bhaskaran Nair | Public Relation Officer | |
| 14. | Shri P.S. Aravindakshan | Joint Director Regional Office (Calicut) | |
| 15. | Shri D. Balakrishnan | Joint Director Regional Office (Kothamangalam) | |

Autonomous Bodies.

1. Shri K. Ramachandran Nair Director, Kerala State Science and Technology Museum
2. Dr. K.P. Parameswaran Pillai Additional Director, Lal Bahadur Shastri Engineering Research and Consultancy Centre.

A list of heads of Institutions is given in appendix 4

1.2. *Staff position.*

There are about 5772 people working under the Directorate belong to various categories and various institutions. Institution-wise their distribution is given in the appendix 5.

2-3.2. *Institutions:*

Altogether there are 154 institutions under the Directorate of Technical Education, of these 138 are purely Government institutions, 9 private institutions and 7 Quasi-Government institutions.

TABLE 2
Number of Institutions under the Department
of Technical Education

| Sl. No. | Category | Management | | | | Remarks Share of new additions |
|---------|--|------------|---------|-------------|-------|-----------------------------------|
| | | Govt. | Private | Quasi Govt. | Total | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 1. | Engineering Colleges | 2 | 3 | 1 | 6 | .. |
| 2. | Polytechnics | 14 | 6 | .. | 20 | 2 |
| 3. | Women's Polytechnics | 4 | .. | .. | 4 | .. |
| 4. | Institute of Printing Technology | 1 | .. | .. | 1 | .. |
| 5. | Foodcraft Institute and Extension Centre | .. | .. | 3 | 3 | .. |
| 6. | College of Fine Arts | 1 | .. | .. | 1 | .. |
| 7. | Institute of Fine Arts | 2 | .. | .. | 2 | .. |
| 8. | Commercial Institutions | 14 | .. | .. | 14 | 6 |
| 9. | Junior Technical Schools | 34 | .. | .. | 34 | .. |
| 10. | Pre-vocational training Centre | 19 | .. | .. | 19 | .. |
| 11. | Govt. Industrial Schools | 2 | .. | .. | 2 | .. |
| 12. | Vocational Training centre | 5 | .. | .. | 5 | .. |

| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
|-------|--|-----|-----|-----|-----|-----|
| 13. | Tailoring Training Centres | 7 | .. | .. | 7 | .. |
| 14. | T.G.M.T. Centres | 31 | .. | .. | 31 | .. |
| 15. | Tailoring Trade Schools | 2 | .. | .. | 2 | .. |
| 16. | Technical Teacher's Training Extension Centres | .. | .. | 1 | 1 | .. |
| 17. | Others | .. | .. | 2 | 2 | .. |
| Total | | 138 | 9 | 7 | 154 | 8 |

APPENDIX 7

Appendix 7 gives the district-wise distribution of these institutions.

In addition to these institutions, there are 350 Industrial Schools and 126 Engineering Institutions which are purely private.

2-3.3. *Facilities:*

All the Institutions are provided with the facilities as per the norms. The salient features of intake is given below in Table 3 and the detailed version is given in Appendix 8.

TABLE 3

| <i>Category</i> | <i>Intake</i> |
|---|---------------|
| Engineering Colleges (Under-graduate courses) | .. 1765 |
| R.E.C. | .. 210 |
| Total | .. 1975 |
| Post-Graduate courses | .. 128 |
| Part-time degree courses | .. 205 |
| College of Fine Arts (degree courses) | .. 45 |
| <i>Polytechnics:</i> | |
| Post Diploma courses | .. 50 |
| Diploma courses | .. 3333 |
| P.T. Diploma courses | .. 231 |
| Certificate course in Textile Technology | .. 60 |
| <i>Junior Technical Schools:</i> | |
| J.T.S.L.C. Course | .. 2200 |
| Plus two level vocational course | .. 760 |

| <i>Categories</i> | <i>intake</i> |
|---|---------------|
| Craft Courses in Polytechnic .. | 36 |
| Fine Arts Institute Courses .. | 60 |
| Food Craft Institutes Courses .. | 180 |
| Commercial Institute Diploma Courses .. | 480 |
| One year Technical Courses of Post S.S.L.C. level .. | 180 |
| Tailoring and Garment Making Training Courses .. | 740 |
| Other Craft Courses .. | 130 |

2. *Scholarships and Stipends:* About 9,900 number of students drawn from various categories of Institutions have been awarded Scholarship and Stipends during the year. An amount about Rs. 2,000 lakhs was distributed as Scholarship and an amount of Rupee about 54 lakhs was distributed as stipend. The details of distribution is given in appendix 9.

3 *Hostel Facilities:* Hostel facilities are available to students wherever necessary. A brief account of the hostel facilities is given as follows and details are given in Appendix 10

| | |
|---|--|
| Engg. Colleges Actual (intake hostels) .. | 3890 (including Re- gional Engg. Col- lege, Calicut) |
| Polytechnics .. | 2180 |
| Women's Polytechnic .. | 205 |

Library facilities: All the Institutes under the Directorate functioned satisfactorily in number of books, acquisition and utilisation.

2-3-4 *Financial:*

The total provision under the State Plan for the Department during the year 1984-'85 was Rs. 234.00 lakhs of which Rs 48.25 lakhs were for works. This fund under works was operated by the P.W.D. Hence the real provision for the Department excluding works comes to Rs. 185.75 lakhs.

The total expenditure (tentative) under the State Plan till the end of March 1985 was Rs. 353.30 lakhs of which Rs. 58.42 lakhs were for works. The percentage of expenditure out of the total provision of Rs 234 00 lakhs was 150.98.

The total expenditure excluding works under the provision of Rs. 185.75 lakhs was Rs. 294.88 lakhs and the percentage was 158.75.

Under the Centrally sponsored scheme the total provision was Rs. 60.00 lakhs and the expenditure (tentative) comes to Rs. 74.44 lakhs (124.06 %).

The total expenditure (tentative) under the Non-Plan category is Rs. 637.04 lakhs against a provision of Rs. 630.21 lakhs.

Detailed review and statement are given under the head "Financial Review"

2.4. Activities

The year 1984-'85 marks an active period in the field of Technical Education in Kerala. There were considerable amount of activities taking place in all the facts. A few of them are mentioned below:—

2-4-1: Routine Academic Activities:

1. Engineering Colleges:

Over, 1500 candidates were selected for admission to the Engineering Colleges by the Commissioner for Entrance Examination exclusive of Regional Engineering College, Calicut. Management quota and various reserved quota. These candidates were allotted to the different Engineering Colleges (both Govt. and Private) by the Directorate.

(i) *Government*:—There are two Government Engineering Colleges, one at Trivandrum and the other at Trichur. They offered courses at Under-Graduate level in basic Engineering disciplines like Civil, Electrical and Mechanical Engineering. At Trivandrum, additionally, Architecture, Industrial Engineering, Electronics and Communication, Applied Electronics. Instrumentation Engineering and Computer Science were offered at Under Graduate level. At Trichur Chemical Production cum-Plant Engineering, Electrical Communication and Computer Science were also offered. The total intake at Trivandrum stood at 475 and Trichur at 360.

Both these Institutions offered Post-Graduate programme in 6 different specialisations.

(ii) *Private*:—There are 3 Private Institutions. The T.K.M. College of Engineering, Quilon offered courses in Civil, Mechanical, Electrical, Electronics and Communication Production and Computer Science and Chemical Engineering with a total strength of 360. The total strength of M.A. College of Engineering, Kothamangalam stood at 270 offering courses in basic Engineering only. N.S.S. College of Engineering, Palghat with a strength of 290. Apart from basic Engineering subjects offered an Under-Graduate Course in Instrumentation and Control Engineering.

2. Polytechnics:

(i) 14 Government Polytechnic, 6 Private Polytechnic, 4 Women's Polytechnics and one Institute of Printing Technology constitute the structure of Diploma level facilities under the Directorate. Apart from the 3 year Diploma Courses in Civil, Electrical and Mechanical

Engineering, courses were offered in Electronics, Instrument Technology, Chemical Technology, Textile Technology, Polymer Technology, Wood Technology, Automobile Engineering, Tool and Die Engineering and Commercial Practice.

(ii) Diploma Courses in Costume Design and Dress Making, Commercial Practice and Electronics are the main courses in Women's Polytechnics. The newly started women's Polytechnic in the Ernakulam District has also introduced Diploma Course in Architectural Draughtman ship.

(iii) A three year Diploma course in Printing Technology is run by the Institute of Printing Technology at Shoranur for a strength of 60 students.

(iv) Six Private Polytechnics offered Diploma Courses in Civil, Mechanical and Electrical Engineering except Swami Nityananda Polytechnic where courses Civil, Mechanical and Automobile Engineering were offered. The Seethi Sahib Memorial Polytechnic also conducts courses in Electronics and Automobile Engineering.

Altogether these Diploma level Institutions meet the demands from over 3333 students.

3. *Junior Technical Schools*

The Institutions conducted tests for admission to the 34 Junior Technical Schools in the State and admitted over 2200 students observing rules regarding reservations.

4. *Other Institutions.*

(i) The Department has recognised Engineering Institutions to impart K G C.E. Courses to feed 7300 students. The number of recognised Institutions of this category are 126. In the above Institutions instructions in Civil Engineering, Automobile Engineering, Mechanical Engineering, Electrical Engineering and City and Guilds of London Examinations are given importance at K G C E. level.

(ii) Instructions in trades like Tailoring, Embroidery and Needle Work are given through 332 Industrial Schools. 80 Institutions are given grant in-aid apart from the same from other Departments like Harijan Welfare and Central Social Welfare Board. About 13,600 students are studying in these Industrial School.

Instruction was imparted to the students in a variety of trades covering different facts of human activities related to Engineering (more than 30 trades).

5. *Arts Institutions:*

There are 3 Arts Institutions located at Mavelikkara, Trichur and Trivandrum, the last being the College of Fine Arts. Also a Craft Section is functioning at the Central Polytechnic, Trivandrum. The College of Fine Arts provides National Diploma. The Institute at Trichur provides a Diploma and at Mavelikkara a Certificate and Diploma Courses. Courses are run for Painting, Sculpture and Applied Art at Trivandrum, Drawing and painting, Sculpture, Modelling and Commercial Art at Mavelikkara and Drawing, Painting and Engraving and Commercial Art at Trichur.

2.4.2. *Part-time Courses:*

1. Part-time courses leading to Degree were conducted in both the Government Engineering Colleges and T.K.M. College of Engineering, Quilon in the branches of Civil, Mechanical, Electrical Engineering Chemical at Trichur and Electronics and Communications at Trivandrum are also conducted. These courses are intended for Diploma holders and the Part-time Programme provides for avenues of career development.

2. College of Engineering, Trivandrum continued the part-time Post-Graduate Course of 3 years duration for teaching faculty.

3. 4 year Part-time Diploma Courses were run in Civil, Mechanical and Electrical in Polytechnics at Trivandrum (Central Polytechnic) Kalamassery (Govt. Polytechnic) Trichur (M.T.I.) and Calicut (Kerala Govt Polytechnic). A Part-time Diploma Course in Textile Technology is run at Central Polytechnic, Trivandrum.

2.4.3 *Post-Graduate and Post-Diploma Courses:*

1. Post-Graduate Courses in Civil, Mechanical, Electrical, Electronics and Communication Engineering were offered at the College of Engineering, Trivandrum. Trichur Engineering College conducted Post-Graduate Courses in Electrical, Mechanical and Chemical Engineering. T.K.M. College of Engineering provided for Post-Graduate Course in Industrial Refrigeration and Cryogenic Engineering.

2. Post Diploma Courses were offered in the Central Polytechnic, Trivandrum (Industrial Electronics), (Television Engg.) and (Computer Application) Government Polytechnic, Kalamassery (Air Conditioning and Refrigeration) and in M.T.I., Trichur (Foundry Technology).

2.4.4. *Sports and Games:*

1. The Inter Polytechnic Athletic Meet was held in March 1985 at Government Polytechnic, Kottayam and 211 Polytechnics actively participated in the meet. The Polytechnic Youth Festival was held in February 85 at Kerala Government Polytechnic, Calicut.

2. All the Engineering Colleges in the State actively participated in the Annual Sports and Games events

3. The Inter Junior Technical School Athletic Meet was held at J.T. School, Calicut in January 1985. There was active participation from all Junior Technical Schools.

4. The Inter Junior Technical School Youth Festival was held at Junior Technical School, Cannanore in January 1985.

2.4.5. *Hostel Activities:*

All the Institutions at Collegiate level and except the newly started Polytechnics, all have hostel facilities attached to the Institutes. They have the actual intake exceeding the sanctioned intake capacity except in certain circumstances. These Hostels maintain mess service on a dividing basis. The hostel facilities are given in Appendix-10.

2.4.6. *Jubilee Celebrations:*

The Silver Jubilee Celebrations of Junior Technical Schools, Manjeri, Shoranur and Kunnankulam were celebrated during the year.

EXHIBITIONS

Exhibitions were conducted at Junior Technical Schools at Manjeri, Kunnankulam and Shoranur in connection with Silver Jubilee Celebrations of these Schools

2.4.7. *Regional Engineering College, Calicut.*

This is a Quasi Government Institution administered by a Society registered under Societies Registration Act XXI of 1860. Administration is vested with a Board of Governors consisting of representatives of Government of India, Government of Kerala, U.G.C., I.I.T., Calicut, All India Council for Technical Education and Industries of the Region.

Instruction is offered at Under Graduate and Post-Graduate levels. At Under Graduate level the intake capacity is 250 (sanction obtained for 350) and at Post-Graduate level 30. The Institute has started a new Under Graduate Course in Production and Industrial Engineering. A new building for the Electronics Department was completed.

2.5. Achievements

During the year 1984-'85 there has been a marked progress in the field of Technical Education in Kerala. This progress can be seen in all areas from the level of Post-Graduate Education down to job oriented/self-employment oriented training programmes especially organised for Harijans. In spite of severe financial restrictions, it was possible to start a few new Technical Institutions in unrepresented areas to introduce new courses in emerging area of technology and to open the first stage

of the Kerala Science and Technological Museum. It was also possible to initiate action for the "Priyadarshini" Planetarium in the Museum Campus. A High level of discipline was maintained in all campuses with resulting improvements in examination results.

2. *New Technical Institutions*.—Two Government Polytechnics, one at Palai in Kottayam District and the other at Vennikulam in Pathanamthitta District were started during the year. Electronics, Instrumentation and Computer Science are the new courses started in these institutions.

Sanction was obtained for the starting of an Extension Centre of the Food Craft Institute at Kottayam. It is anticipated that a major part of expenditure for the institution can be obtained from Government of India.

Further, Government Commercial Institutes at Punalur, Ettumanoor, Kothamangalam, Mala, Kalpetta and Thaliparamba started functioning during the year

3. *New Courses*.—Sanction was obtained for the starting of a Part-time evening M.B.A. course at College of Engg Trivandrum.

Degree courses in "Computer Science" were started at College of Engg. Trivandrum, Engineering College, Trichur and T.K.M. College of Engg. Quilon.

With cent percent Government of India assistance, two Post Graduate courses at Regional Engineering College, Calicut and one P.G. course at T.K.M. College of Engg. Quilon were started during the year.

A Diploma course in "Automobile Engg." was started at S.S.M. Polytechnic, Tirur

A one year Post Diploma course in "Television Engg." and 18 months Post Diploma course in "Computer Application" was started at Central Polytechnic, Trivandrum. A major share of expenditure for the Computer course is met by the Central Government.

Diploma courses in "Commercial Art" were started at Institute of Fine Arts at Mavelikkara and Trichur.

A Post-Diploma course in "Industrial Safety" was started at Kalamassery, for the benefit of the employees of the Industries.

For creating job opportunities among Women, One year training courses in "Cosmetology and Beauty Parlour Management" were started at Kalamassery and Kottayam.

A Part-time Evening Diploma course in Textile Technology, was started at Central Polytechnic, Trivandrum.

4. *Short-term Courses and Training Programmes*:—As a part of the “Scheduled Caste/Scheduled Tribe year”, the Department in Collaboration with L B S R. Consultancy Centre, training was given to about 500 SC/ST youths, in various modern technology and trades. Repair of Electrical appliances, Watch repairing, Radio repairing, Television Screening, Electroplating, Toy Making, Building Technology, Pottery Painting, Catering Technology, Food Processing, Computer operation, and Heavy Duty Driving were the main fields of training.

In addition to this, various courses in Computer Programming, Computer application course for the final year students of Engineering Colleges, training programme in “Micro-Processor” for students in Women’s Polytechnics, Training courses in “Modern Office Equipment” for employed women were also conducted by the Lal Bahadur Sastri Research and Consultancy Centre. More than 400 persons were benefited by these programmes.

5. *Kerala State Science and Technology Museum*:—The first stage of the “Kerala State Science and Technology Museum” was inaugurated in July, 1984. This project which will be costing more than Rs. 10.00 crores and designed with 12 Science and Technology Galleries is expected to be completed in the next five years. “Priyadarshini Planatorium” a major part of the Museum will be completed within an year. This Planatorium controlled by a Computer and with 150 special effect arrangements can accommodate about 300 persons at a time. The major part of the instruments are purchased from the ‘Gotto’ Company of Japan. In their opinion this Planatorium costing about Rs. 2.5 crores will be the most modern Planatorium in India.

6. *Vocational Education*:—At the Higher Secondary level Vocational Education was introduced in 11 more Junior Technical Schools.

7. *Regional Engineering College, Calicut*:—A new building for the Electronic Department was completed. A degree course in “Production and Industrial Engg.” was started. Sanction was also obtained for the starting courses in “Computer Science” and Architectural Engg. and to increase intake from 250 to 350 from 1985 admission onwards.

8. *Regional Offices*:—The Regional Offices of the Department started functioning at Calicut and Kothamangalam during the year. These offices are headed by joint Directors. The Supervision, Inspection, audit, Recognition of Private Institutions, Distribution of grants, Approval of appointment of teachers, Direct Payment etc. relating to the institutions in concerned regions are proposed to be dealt within these offices. This arrangement will make the administration of the Department more efficient.

9. *Lal Bahadur Sastri Engg. Research & Consultancy Centre, Sasthamangalam*:—During the year 1984-85 the activities of the Centre were developed and extended to various fields. A computer costing

Rs. 15.00 lakhs was installed and more than 1500 educated people were given training in Computer programming. Various Govt. Departments were given technical advice on computer applications and the work relating to Computer applications were also taken up by the Centre. In addition to the usual consultancy work, the centre has taken up the repair and maintenance of the sophisticated instruments. Steps were also taken for the construction of building for the Centre at Kalamassery and Trivandrum. A major part of the expenditure for the purchase of computer, land and construction of buildings was not from the income received from the consultancy work of the centre. The Centre has given training in modern technology and instruments, to about 200 Engg. degree students, 60 women's Polytechnic students, 350 SC/ST youths, and 100 employed womens.

10. *Computer Centres*:—Computer Centres costing Rs. 7.00 lakhs to Rs. 15.00 lakhs were installed in all the six Engineering Colleges with the financial assistance of Government of India. Supply orders were also given for the purchase of computers to the 3 Women's Polytechnics, Central Polytechnic, Trivandrum and Govt. Polytechnic, Palai. Mini-Computers each costing over Rs. 2 lakhs were provided to all departments of the College of Engg., Trivandrum. The students in various Technical courses can understand the influence of Computer age and also exercise the Computer usage through these Centres.

11. *Water Resources Management Centre*:—A "Water Resources and Management Centre" was started functioning in the College of Engg., Trivandrum with cent percent financial assistance of Government of India. The main function of the centre is the study and research of various water resources and its efficient usages.

12. *Examination Results and other Activities*:—In General discipline and enthusiasm were seen in the academic field. The Department was able to conduct the Diploma Examinations and publish the result in the Scheduled time. Compared to the previous years results, there was an increase of 15% in the percent of pass. Steps have also been taken to conduct the examinations and publish the results of the Engineering Colleges within time schedule.

The Silver Jubilee Celebration of Junior Technical Schools, Manjeri, Shoranur and Kunnankulam were celebrated during the year. For the conduct of Youth Festivals in the Junior Technical Schools and Polytechnics an amount of Rs. 30,000 and Rs. 20,000 respectively was given as grant by Government. Both the Youth Festivals was conducted in a well disciplined manner.

13. *Industrial Liaison Board*:—For the promotion of understanding, Co-operation and liaison among the technical institutions and institutions an "Industrial Liaison Board" was constituted under the Chairmanship of the Hon'ble Minister of Education. More than 20 top officials from the

various Industries are members of the board. The first meeting of the Board was held in November, 1984, and was decided to take steps for the co-operation and help of industries in the conduct of technical Education.

14 *State Board of Technical Education*:—The Government of Kerala have reconstituted the State Board of Technical Education for a period of 3 years from 22-10-1984 with 60 eminent members from among Science, Technology, Educational, Industrial administrative fields and the Minister of Education as Chairman

15. *Action Indicated Programmes*:—Considering the fact that no new Engineering Colleges were started during the last 25 years and the increasing demand for Engineering degree admissions, a Special Officer was appointed to study the need for more Engineering Colleges in Kerala. The report of the Special Officer emphasised the urgent need of starting three Engineering Colleges—one in the educationally advanced Central Travancore area, one in the Industrial belt of Cochin area and the other in the undeveloped area of Northern Malabar. The report was examined by the Expert Visiting Committee appointed by Government of India and the Committee recommended the report. The Southern Regional Committee of A.I.C.T.E. in its meeting held on February, 1985 has also approved the need for starting these Engineering Colleges. The proposal for starting the Engineering College is under the consideration of Government.

Government have accorded sanction for the starting of 10 Junior Technical Schools in the undeveloped rural areas

Steps have been taken to start in 1985, job-oriented courses like "Cinematography", Sound Engineering, Ceramic Technology, Pulp and Paper Technology. The Curriculum and Syllabus of these courses have also been prepared. Steps are also being taken to start a Post-Graduate Diploma course in Travel and Tourism at Trivandrum.

2.6. Attention Paid to SC/ST and Weaker Sections of the Society

Some of the special interest taken by the Directorate in this Direction has been already outlined earlier under the head 'achievement'. They are consolidated and briefly mentioned here.

1. Effective implementations of the Special component Plan by providing tools, Equipments, clothing and cash for the purchase of instruments at Junior Technical School, Polytechnic and Engineering College levels.

2. Arrangement of special coaching for them at poor calibre in studies.

3. Stuffed Toy Making Training course for 18 months in Women's Polytechnics at Trivandrum, Trichur and Calicut with a stipend of Rs. 250 p.m and a sewing machine.

4 The Department in Collaboration with Lal Bahadur Sastri Research and Consultancy Centre, training was given to about 500 SC/ST youths in various modern technology and trades: Repair of Electrical Appliances, Watch repairing, Radio repairing, Television Servicing, Toy Making etc. were the main fields of training.

2.7. Direct Financial Assistance from Government of India

Government of India has given direct financial assistance to many institutions in Kerala under the Directorate of Technical Education for different purposes. They are briefly mentioned below:—

| | Rs. |
|---|----------|
| 1. Engineering College, Trivandrum | 7 lakhs |
| 2. Engineering College, Trichur | 12 „ |
| 3. T.K M. College of Engg., Quilon | 22 „ |
| 4. M.A College of Engineering, Kothamangalam | 10 „ |
| 5. N.S.S. College of Engineering, Palghat | 10 „ |
| 6. S.S M. Polytechnic, Tirur | 3 „ |
| Total | 64 lakhs |

3. GENERAL

3.1. Progress in the use of Malayalam as Official Language

Steps were taken to use Malayalam for correspondence with class IV Staff and convert the various forms used in the department into Malayalam. Some of the general correspondence were also done in Malayalam.

3.2. Industrial Liaison Board

The Government of Kerala have constituted an Industrial Liaison Board for Technical Education with the Minister for Education as its Chairman and with eminent industrialists of Kerala as its members. The first meeting of the Board was held at Ambalamedu Guest House, Cochin on 17th November 1984 and areas of mutual interest and collaboration between industry and institutions were discussed in detail.

3.3. State Board of Technical Education

The State Board of Technical Education was reconstituted for three years with effect from 25-4-1984 with the Minister for Education as Chairman and with 60 members.

3.4. ISTE Summer Schools

The following summer schools financed by the Indian Society for Technical Education were conducted during May/June 1984.

- | | |
|--|--|
| 1. College of Engineering, Trivandrum | Micro Processor Applications |
| 2. Regional Engineering College, Calicut | 1 Fracture Mechanics 2. Modern Trends in Manufacturing Science 3. Digital Techniques |
| 3. Maharaja's Technological Institute, Trichur | Environmental Pollution Control |
| 4. Sree Rama Polytechnic, Valapad | Modern Trends in Electrical Driver and Control |
| 5. Central Polytechnic, Trivandrum | Principles and applications of Micro Processor |

3.5. Meeting of Principals

A meeting of I.S.T.E. Executive Council Members with Principals of Engineering Colleges and Polytechnics in the State and Senior Officers of the Technical Education Department was conducted on 26-7-1984 at T.K.M. College of Engineering, Quilon. The Hon. Minister for Education inaugurated the meeting which was attended by over 50 members.

3.6. Workshop on Solar Energy

A one day workshop on Solar Energy was conducted on 23-11-1984 at Mascot Hotel, Trivandrum, jointly sponsored by the Department of Energy, Government of India, the Lal Bahadur Shastri Engineering Research and Consultancy Centre and the Department of Technical Education and participating over 60 leading Scientists, Engineers, Technologists, Industrialists and Administrators who are interested in solar energy production and utilisation.

3.7. Seminar on Management in Technical Institutions

A two day seminar in Management of Technical Institutions was held on August 17 and 18, 1984 at Mascot Hotel, Trivandrum, jointly sponsored by the Indian Institute of Management, Bangalore and the Department of Technical Education. The seminar was attended by the Principals and Senior Professors of the six Engineering Colleges in the State.

3.8. Co-operative Society for Harijans

A Co-operative Society formed by the 27 trainees of the 18 months special training course for Harijan girls in Stuffed Toy Making was inaugurated by the Hon. Chief Minister on September 4, 1984. The Society will help the trainees to produce Stuffed Toys and market them on a continuing basis. Necessary financial assistance for this society has been promised by various sources.

3.9. Low Cost Building Construction Techniques

The Rural Housing Wing of the College of Engineering, Trivandrum has directed construction activities employing cost reduction techniques at 12 different localities in the State. Nearly 750 construction workers and semi-skilled labourers were trained in the new cost reduction techniques developed by the National Buildings Organisation

3.10. Science and Technology Museum Inaugurated

The first stage of the Kerala State Science and Technology Museum at Trivandrum was inaugurated by the Hon. Chief Minister on July 9, 1984. The Museum is now open to visitors. The foundation stone of the "Priyadarsini Planatorium" attached to the Science and Technology Museum was laid by the Hon. Chief Minister on November 19, 1984.

3.11. Seminar on Renewable Sources of Energy

A 3 day seminar on Renewable Sources of Energy, sponsored by the State Committee on Science, Technology and Environment was conducted at Sree Rama Polytechnic, Valapad during May 3 to 5, 1984.

3.12. Seminar on Computer in Administration

A one day Seminar on Computer in Administration was held at Mascot Hotel on April 7, 1984. It was attended by 40 officers including Government Secretaries, Heads of Departments and Senior Officers of the Secretariat.

3.13. Palai Polytechnic Inaugurated

The newly started Government Polytechnic at Palai was inaugurated on September 24, 1984 by Sri T.M. Jacob, Hon. Minister for Education, Sri K.M. Mani, Hon. Minister for Finance presided over the function.

3.14. Vennikulam Polytechnic Inaugurated

The newly established Government Polytechnic at Vennikulam was inaugurated on October 26, 1984 by Sri T.M. Jacob, Hon. Minister for Education.

3.15. Awards

The Indian Institute of Chemical Engineer's 1984 National Award for "Excellence in Process and Product Development" was awarded to Dr. P. Sivasankara Pillai, Professor and Head of Department of Chemical Engineering, Government Engineering College, Trichur

3.16. Publications

Directorate of Technical Education continued the publication of the quarterly titled "TEK NEWS LETTER" highlighting major activities of the Department and new trends in technical education.

3.17. Recruitment of Personnel Belonging to SC/ST

Due to shortage of SC/ST students coming out of Engineering Colleges the Department was not able to fill up the vacant posts of Lecturers in Engineering Colleges reserved for SC/ST candidates. So steps were taken to recategorise these posts into Lecturer's posts in Polytechnics where the minimum qualification required is only a diploma in Engineering. Also in the qualification for lecturers in Polytechnics, the experience part was considerably relaxed for SC/ST candidates to ensure speedy filling up of the posts.

Attempts are also being made to attract more SC/ST students to the Engineering Degree Courses as at present nearly two-thirds of the total seats allotted for SC/ST students for Degree Courses are being not utilised due to lack of applicants.

3.18. Grants

| Category | Plan (lakhs) | Non-plan (lakhs) |
|------------------------------|-----------------|---------------------|
| Private Engineering Colleges | Nil | 84.50 |
| Private Polytechnics | 1.25 | 72.87 |
| Private Industrial Schools | . | 3.25 |
| Regional Engineering College | 3.00 | 44.00 |
| Food Craft Institutes | 8.25 | 8.43 |

Scholarships

Scholarships and stipends paid during 1984-85 to students from Kerala studying outside the State.

0.09

3.19. Man Power Planning and Development (Inclusive of Training of Officers)

1. Faculty from Engineering Colleges continue to undergo advanced Education in Engineering at selected and approved centres in India under the Quality Improvement Programme. The faculty members are deputed for higher studies in Post Graduate Level and Ph. D. Level. During the year under report 8 candidates have been deputed for M.Sc./ M Tech and 6 candidates for Ph.D.

2. Similar Programme is implemented in Polytechnics and in the year 24 candidates were deputed to T.T.T.I

3. A number of faculty members from Engineering Colleges, Polytechnics and Junior Technical Schools were also sponsored for participating in various Short Term Courses organised by the I.S.T.E., Q.I.P., Programme and T.T.T.I.

4. A study on the Employment pattern of women diploma holders passed out from Women's Polytechnics has been taken up.

5. A study on the wastage of SC/ST students in Engineering Colleges and Polytechnics is in progress

3.20. Harijan Year

Over 450 Harijan Youths were given specialised training in various, engineering trades and modern technology with financial support from the Harijan Welfare Department. The training programmes were inaugurated by the Hon Chief Minister on April 3, 1984 at Kanakakunnu Palace, Trivandrum Heavy Duty Vehicle Driving, Radio and Television Repair, Horology, Electroplating, Instrument Repair, Electronics and Electric Appliances repair, Toy Making, Computer Programming and Console operation were the trades and areas in which training was given for periods ranging from 3 months to one year.

4. FINANCIAL REVIEW

The Financial resources have been already outlined earlier. The total outlay (both plan and non-plan) come to Rs 868 21 lakhs During the year under report the total expenditure (tentative) came to Rs. 990.34 lakhs The provision and expenditure pertaining to 1984-85 in comparison with 1983-84 is given under in the table

The amount provided under the plan was for the various schemes of development activities of technical education The details are outlined in the "Achievements" The amount under the Non-Plan was mainly for the salaries and other expenses for staff and related activities.

4.1. Scheme-wise Statement of Plan Provision and Expenditure during the years 1983-84 and 1984-85

(Rs. in lakhs)

| <i>Sl. No.</i> | <i>Head of account and name of scheme</i> | <i>Provision for 1984-85</i> | <i>Expenditure for 1984-85 (tentative)</i> | <i>Provision for 1983-84</i> | <i>Expenditure for 1983-84</i> |
|----------------|--|------------------------------|--|------------------------------|--------------------------------|
| (1) | (2) | (3) | (4) | (5) | (6) |
| 1. | 277 F(a)1—Directorate 477 (d) 1 | 4.50 4.00 | 7.57 .. | 4.00 3.00 | 3.26 .. |
| 2. | 277 F(a) 2—Statistical and placement cell in the Directorate | 1.50 | 1.50 | 1.20 | 1.33 |
| 3. | 277 F(a) 3—Examination wing in the Directorate | 8.00 | 15.72 | 7.80 | 11.52 |
| 4. | 277 F(b) 1—Junior Technical Schools | 8.00 | 4.84 | 7.50 | 5.90 |
| 5. | 277 F (b) 3—Pre-vocational training centres | 9.00 | 16.81 | 9.00 | 11.87 |
| 6. | 277 F (b) 4—Starting of New Junior Technical Schools 477 (d) 1 | 14.00 | 36.15 | 13.40 | 18.95 |
| 7. | 277 F (b) 5—Vocationalisation of Education at Post Secondary stage in Junior Technical Schools | 4.00 | 12.00 | 0.10 | 4.05 |
| 8. | 277 F (c) 1—Govt. Polytechnics 477 (d) 1 | 6.50 18.00 | 5.27 20.19 | 6.00 16.00 | 5.63 18.94 |
| 9. | 277 F (c) 2—Women's Polytechnics | 2.50 | 1.44 | 2.00 | 1.65 |
| 10. | 277 F(c) 3—Centres for Diploma in Commercial Practice 477 (d) 1 | 4.50 0.50 | 8.91 .. | 4.50 0.50 | 5.05 .. |
| 11. | 277 F(c) 4—New Polytechnics | 10.00 | 40.08 | 8.00 | 22.76 |
| 12. | 277 F(d) 2—Development of Engineering College, Trivandrum | 5.00 | 2.85 | 4.00 | 4.00 |

| (1) | (2) | (3) | (4) | (5) | (6) |
|-----|---|--------------|--------------|--------------|--------------|
| 13. | 277 F(d) 4—Development of Engg. College, Trichur 477 (d) 1 | 5.90 7.60 | 6.16 4.15 | 4.45 5.50 | 3.96 6.63 |
| 14. | 277 F(d) 6—Upgrading of Engg. College, Trivandrum by providing centralised facilities | 11.00 | 8.86 | 8.50 | 10.61 |
| 15. | 277 F(d) 7—Installation of Computer at Kerala University Campus | 2.50 | 0.97 | 2.00 | 1.81 |
| 16. | 277 F(d) 8—Part-time courses | 3.50 | 6.98 | 3.00 | 6.44 |
| 17. | 277 F(d) 13—Central Instrument Workshop 477 (d) 1 | 5.50 0.50 | 1.10 .. | 5.50 0.50 | 1.61 .. |
| 18. | 277 F(e) 1—Private Engg. Colleges | Nil | .. | 8.00 | 14.13 |
| 19. | 277 F(e) 2—Regional Engineering College, Calicut | 3.00 | 3.00 | 2.00 | 2.00 |
| 20. | 277 F(e) 3—Private Polytechnics | 4.00 | 1.25 | 4.00 | 1.22 |
| 21. | 277 F(e) 4—Food Craft Institute, Kalamassery and Extension Centres | 7.00 | 8.25 | 7.00 | 7.00 |
| 22. | 277 F(h) 1—Faculty Development | 12.00 | 16.58 | 12.00 | 14.42 |
| 23. | 277 F(h) 5—Apprenticeship training | 5.00 | 6.18 | 5.00 | 6.10 |
| 24. | 277 F(h) 6—Industrial Residence | 0.50 | 0.75 | 0.50 | 0.20 |
| 25. | 277 F(h) 8—Revision of staff structure | 7.00 | 14.11 | 7.00 | 18.35 |
| 26. | 277 F(h) 9—Tailoring and garment making training centre 477 (d) 1 | 2.83 0.50 | 2.74 .. | 2.80 0.50 | 1.65 .. |
| 27. | 277 F(h) 10—Tailoring & Garment making Training Centres Special component Plan | 1.00 | 2.20 | 1.00 | 1.17 |

| (1) | (2) | (3) | (4) | (5) | (6) |
|-----|--|--------------|-------------|--------------|------------|
| 28. | 277 F(i)5 - Technological Museum 477(d) 1 | 4.25 0.75 | 4.59 .. | 3.50 0.50 | 5.48 .. |
| 29. | 277 F(i) 8 - Diversification of courses | 17.00 | 36.46 | 15.00 | 23.92 |
| 30. | 277 -F (i) 9 - Modernisation of Laboratories | 2.00 | 1.96 | 2.00 | 1.64 |
| 31. | 277 F(i) 10—Free supply of Text books, instruments etc. to scheduled caste students— Spl. component Plan | 1.50 | 3.10 | 1.50 | 2.14 |
| 32. | 277 -F (i) 11 - Free supply of Text books, instruments etc. to Sch. Tribe students - Tribal.Sub.- Plan | 0.13 | 0.03 | 0.13 | 0.04 |
| 33. | 277 F(i) 12—Supply of Text books, instruments etc. to Scheduled Tribe students —Dispersed tribes | 0.07 | .. | 0.07 | .. |
| 34. | 277 - F(i) 13 - Matching grant for Central schemes | 3.00 | 3.13 | 3.00 | 3.15 |
| 35. | 277 F (i) 15 - Remedial courses—Special component Plan | 3.00 | 2.43 | 3.00 | 3.73 |
| 36. | 277-F (i) 19 - Granting of autonomy to one Engineering College and two Polytechnics | 0.10 | .. | 0.05 | 1. |
| 37. | 277-F(i), 23.- Regional Engg. College, Calicut- Merit-promotion to teachers (State share) | 0.10 | 0.10 | .. | .. |
| 38. | 277-F (i) 24- Starting of Post-B.Sc. Course in Computer Science in Polytechnic, Trichur (State share) | 0.37 | 0.08 | .. | .. |
| 39. | 278 (a) 7 - College of Fine Arts, Trivandrum 477 (e).1 | 6.00 1.00 | 10.73 .. | 6.00 1.00 | 6.77 .. |
| 40. | Construction of Staff Quarters—477 (d) 1 | 5.00 | 6.53 | .. | .. |
| | Total | 234.00 | 353.30 | 215.00 | 262.50 |

| (1) | (2) | (3) | (4) | (5) | (6) |
|--|--|--------|-------|-------|-------|
| CENTRALLY SPONSORED SCHEMES (100% CENTRAL ASSISTANCE) | | | | | |
| 1. | 277-F(d) 3 - Post-graduate, course in Engineering College, Trivandrum | 30.00 | 40.72 | 30.00 | 28.77 |
| 2. | 277-F (d) 5-Post-graduate course in Engg. College, Trichur | 15.00 | 16.97 | 15.00 | 15.65 |
| 3. | 277-F (d) 15—Direct Central assistance for development of Govt Engg. Colleges and Polytechnics | 115.00 | 16.75 | 15.00 | 5.21 |
| | Total | 60.00 | 74.44 | 60.00 | 49.63 |
| CENTRALLY SPONSORED SCHEMES (50% CENTRAL ASSISTANCE) | | | | | |
| 1. | 277-F (i) 23 - Regional Engg. College, Calicut - Merit promotion to teachers | 0.10 | 0.10 | .. | .. |
| 2. | 277-F (i) 24 - Starting of Post B.Sc. course in Computer Science in Polytechnic, Trichur | 0.37 | .. | .. | .. |
| | Total | 0.47 | 0.10 | .. | .. |

TABLE

4.2. Scheme-wise Statement of Non-Plan Provision and Expenditure during the years 1984-85 and 1983-84

(Rs. in lakhs)

| Sl. No. | Head of account and name of scheme | Provision for 1984-85 | Expenditure for 1984-85 | Provision for 1983-84 | Expenditure for 1983-84 |
|---------|--|-----------------------|-------------------------|-----------------------|-------------------------|
| | | | (tentative) | | |
| (1) | (2) | (3) | (4) | (5) | (6) |
| 1. | 277-F (a) 1 - Direction and Administration | 19.08 | 19.26 | 17.33 | 16.60 |
| 2. | 277-F (b) 1 - Junior Technical Schools | 115.54 | 114.60 | 105.05 | 96.27 |
| 3. | 277-F (b) 2 - Industrial education | 9.64 | 8.79 | 9.01 | 7.64 |

| (1) | (2) | (3) | (4) | (5) | (6) |
|-------|---|--------|--------|--------|--------|
| 4 | 277-F (b) 3 - Pre-Vocational Training Centres | 6.04 | 5.64 | 5.61 | 5.22 |
| 5. | 277-F (c) 1—Polytechnics | 135.70 | 134.71 | 135.65 | 122.75 |
| 6. | 277-F (c) 2—Women's Polytechnics | 18.09 | 17.74 | 16.46 | 14.71 |
| 7. | 277-F (d) 1—Engg. Colleges | 114.26 | 116.63 | 114.79 | 109.58 |
| 8. | 277-F (e) 1—Private Engg. Colleges | 79.90 | 84.50 | 72.66 | 75.03 |
| 9. | 277-F (e) 2 - Regional Engg. College, Calicut | 44.00 | 44.00 | 40.47 | 58.42 |
| 10. | 277-F (e) 3 - Private Polytechnics | 69.00 | 72.87 | 65.90 | 67.88 |
| 11. | 277-F (e) 4 - Foodcraft Institute | 8.48 | 8.48 | 7.71 | 5.60 |
| 12. | 277-F (e) 5 - Industrial Schools | 3.30 | 3.25 | 3.80 | 3.02 |
| 13. | 277-F (f) 1 - Scholarships | 0.50 | 0.09 | .. | .. |
| 14. | 278 (a) 2 - School of Arts | 6.68 | 6.48 | 5.96 | 5.77 |
| Total | | 630.21 | 637.04 | 600.40 | 588.49 |

5. LIST OF APPENDICES

1. Members of the State Board of Technical Education.
2. Members of the Board of studies in Engineering and Technology.
3. Members of the Industrial liason Board.
4. List of Heads of Institutions.
5. Staff Position.
6. List of Technical Institutions in Kerala
7. District-wise Distribution of Technical Institutions.
8. Intake capacity and courses offered.
9. Scholarships and stipends.
10. Hostel Facilities.

Appendix-I*Members of State Board of Technical Education.*

1. Hon'ble Minister for Education: Chairman.
2. The Secretary to Government Higher Education.
3. The Secretary to Government, General Education.
4. The Secretary to Government, Finance Department.
5. The Secretary to Government, Planning Department.
6. The Secretary to Government, Industries Department.
7. The Director of Industries & Commerce.
8. Director of Collegiate Education.
9. Director of Medical Education.
10. Director of Public Instruction.
11. Chief Engineer, P.W.D. (General)
12. Chief Engineer (Electrical), K.S.E. Board.
13. Chief Engineer, Water & Waste Water Authority.
14. Chief Electrical Inspector, Trivandrum.
15. University of Kerala (Nominee of Universities)
16. University of Calicut ”
17. Gandhiji University ”
18. Cochin University ”
19. Agricultural University ”

Nominees of Government of India.

20. Dy. Ednl. Advisor (T), Ministry of Education, S.R.O., Madras.
21. Director, Board of Apprenticeship training, Ministry of Education, S.R.O., Madras.
22. Principal, Tech: Teachers Training Inst., Madras.

Nominees of Professional Bodies.

23. Institution of Engineers (India).
24. Indian Society for Technical Education.

Nominees of Research Organisation.

25. Vikram Sarabhai Space Centre.
26. Council of Industrial and Scientific Research.
27. L.B.S.E.R. and C. Centre.
28. Electronic Research and Development Centre, KELTRON Trivandrum.

Parliament and State Legislature.

29. Shri George Joseph Mundakkal, M.P. (Moovattupuzha)
30. Shri V.V. Joseph, M.L.A., Moovattupuzha.

Recognised Associations

31. Chairman, K.S. Polytechnic students' Union.
32. President, Dip. Engg. Association, Kerala.

Engg. Industries

33. Representative, Association of Indian Engg. Industry.
34. Chairman and Managing Director, KELTRON, Trivandrum.
35. M.D., HMT, Kalamassery.
36. M.D., FACT, Udyogamandal.

Armed Services:

37. Brig. P. M. Menon, Director, Vehicle Research Centre, Ahmednagar.

TECHNICAL INSTITUTIONS

Engg. Colleges:

38. Dr. S. Narayana Iyer, Principal, E. C., Trivandrum.
39. Prof. P.B J. Labba, Principal, T.K.M.E.C, Quilon.
40. Dr. S Unnikrishna Pillai, Principal, REC, Calicut.

B. Polytechnics.

41. Shri K.S.S. Naik, Principal, M.T.I., Trichur.
42. N. Bhaskara Kurup, Principal, N.S.S. Poly., Pandalam.

C.J.T. Schools.

43. Shri L. Mathew, Supdt., JTS, Adoor.

Experts.

44. Dr. C. Jayaraman, Dean of P. G. Civil
Studies, E.C., Trivandrum.
45. Dr. S. Ravikumar, Dean of P. G. Mech.
Studies, E.C., Trivandrum
46. Dr. K.A. Muralcedharan, Professor, Electrical
College of Engg., Trivandrum
47. Dr. M. Harisankar, Professor, Electronics
E C., Trivandrum.
48. Dr. Govindan Aniyath Paral, Chemical
Professor, E.C., Trichur
49. Shri Jipson Charles, Principal, Commerce
W.P., Trivandrum
50. Shri V.K. Jawaharlal, Principal, Printing
I P.T., Shoranur
51. Shri V. Nirmalan Thampy, Joint Auto.
General Manager, K.S.R.T.C.,
Trivandrum
52. Dr. Jose, Common facilities Centre, Polymer Tech.
Indl. Estate, Changanacherry
53. Dr. M.S. Valiathan, Director, SCM. Bio-engineering
Centre, Trivandrum

| | | |
|-----|--|------------------|
| 54. | Miss. Thankam Philip, Principal, Institute of Hotel Management, Bombay | Food craft |
| 55. | Shri C.L. Porinchukutty, Principal, College of Fine Arts, Trivandrum | Fine Arts |
| 56. | Head of Dept. of Textile Tech. P S C. College of Engg., Coimbatore. | Tex: Tech. |
| 57. | Dr. K. Ramachandran, Prof. of Place- ment and Training, DTE's Office | Placement & Trg. |
| 58. | Dr. K. Sathyanandan, Prof. of Physics, University of Cochin. | Science |
| 59. | Prof. G. Nagappan Nair (Retd. Principal), Nalanchira, Trivandrum | Mathematics |
| 60. | Director of Technical Education | Convener |

Appendix 2

Members of the Board of studies in Engineering and Technology

Chairman: Director of Technical Education

Chairmans:

1. Director of Public Instruction.
2. Chief Engineer (General) P.W.D. Trivandrum.
3. Chief Engineer (Electrical) K.S.E.B. Trivandrum.
4. Shri K.S. Sreenivasa Naik, Principal, Kerala Govt. Poly-
technic, Calicut
5. Shri K.P. Pothen, Head of Section in Textile Technology,
Central Polytechnic, Trivandrum.
6. Dr. P. Sivasankara Pillai, Head of the Department of Chemical
Engg., Engineering College, Trichur.
7. Shri N. Bhaskara Kurup, Principal, N.S.S. Polytechnic,
Pandalam.
8. Shri C.K. Sreedharan, Professor of Commerce, Govt. Arts
College, Trivandrum.
9. Dr. S. Narayana Iyer, Principal, Engg. College, Trivandrum.
10. Deputy Director (General), D.T.E's Office, Trivandrum.
11. Dr. R. Venketaraman, Professor-in-charge, Technical Teachers
Training Institute, Extension Centre, Kalamassery.
12. Shri C.I. Mathew, Joint Director, D.T.E's Office, Trivandrum
13. Dr. S. Hariharan, Joint Director, D.T.E's Office, Trivandrum

Appendix 3

GOVERNMENT OF KERALA

Abstract

EDUCATION—TECHNICAL—ESTABLISHMENT OF LINKAGE BETWEEN
TECHNICAL INSTITUTION AND INDUSTRY—CONSTITUTION OF INDUSTRIAL
LIAISON BOARD—ORDERS ISSUED.

HIGHER EDUCATION (G) DEPARTMENT

G.O.(MS.) No. 209/84/H. Edn. Dated, Trivandrum, 3-8-1984.

Read:—Correspondence resting with Director of Technical
Education letter No. T1-38859/83, dated, 18-4-1984.

O R D E R

1. The Estimate Committee of Parliament 1977-78 made some recommendations urging the need for increased Linkage between Industry and Technical Institution with a view to have a need based Education and increased productivity of workers. One of the recommendations is to establish an Industrial Liaison Board in the State. In the circumstances, Director of Technical Education has recommended to set up a liaison Board comprising the representatives of Industries, Engineering Establishments, Research Organisations in the State for Linkage between Technical Education and Industry.

2. Government after due consideration are pleased to constitute the Industrial Liaison Board with the following members:—

- | | |
|--|----------|
| 1. Minister of Education, Government of Kerala, Trivandrum | Chairman |
| 2. Vice-Chancellor, University of Cochin, Cochin-22 | Member |
| 3. Commissioner for Economics Development, Govt. of Kerala | Member |
| 4. Secretary to Government Higher Education Department, Government of Kerala, Trivandrum | Member |
| 5. Secretary to Government, Industries Department, Government of Kerala, Trivandrum | Member |
| 6. Director of Employment and Training, Trivandrum | Member |
| 7. Chairman, State Committee on Science & Technology, Government of Kerala, Trivandrum | Member |

- | | | |
|------|--|--------|
| 8 · | Director, Vikram Sarabai Space Centre, Trivandrum | Member |
| 9 · | Principal, College of Engineering, Trivandrum | Member |
| 10 · | Managing Director, Water and Waste Water Authority, Trivandrum | Member |
| 11 · | Managing Director, ALIND, Udarasiromony Road, Trivandrum | Member |
| 12 · | Managing Director, Premier Tyres Limited, Kalamassery, Alwaye-603104 | Member |
| 13 · | Managing Director, Kerala News Print Mills, HPC Unit, Velloor, Kottayam | Member |
| 14 · | Managing Director, Western India Plywoods Limited, Balapattam, Cannanore-670010 | Member |
| 15 · | Chairman and Managing Director, K.S.I K , St. Joseph's Press Buildings., Cotton Hill, Trivandrum | Member |
| 16 · | Managing Director, Kerala Minerals and Metals Limited. Beach Road, Quilon-1. | Member |
| 17 · | Managing Director, Steel Industries Kerala Limited, Oottukuzhi, Trivandrum | Member |
| 18 · | Managing Director, Talk, Angamaly South, Ernakulam-683573 | Member |
| 19 · | Chairman and Managing Director, Keltron, Keltron House, Vellayambalam | Member |
| 20 · | Managing Director, Cochin Refineries Limited, P.B. No. 2, Ambalamughal-682302 | Member |
| 21 · | Chairman and Managing Director, FACT Ltd. Udyogamandal Pin-683501. | Member |

- | | | |
|------|---|------------------|
| 22 · | General Manager, HMT Colony Post, Kalamassery – 683503 | Member |
| 23 · | General Manager, Instrumentation Limited, Kanjikode West, Palghat-67823 | Member |
| 24 · | Managing Director, Cochin Shipyard Limited P.B. No. 1653, Cochin-682015 | Member |
| 25 · | Director of Technical Education Government of Kerala, Trivandrum-695023 | Member Secretary |

3. Scope of Board

(1) The Board shall be the recommending authority for the development and research activities in Technical Education and the technical ManPower Development in the State.

(ii) At the State level the board shall—

(a) Identify the areas and fields in which courses at various levels are needed and also set up expert committee to design appropriate courses.

(b) recommend appropriate changes in the curriculum and diversification of courses in suit the needs of industries.

(c) Devise means for effective training for students of the sandwich courses.

(d) Suggest methods for effective utilisation and increase in the number of training vacancies for the training under Apprenticeship Training Act.

(e) Suggest norms for in-plant training of technical students during their vacation periods.

(f) Prepare proposals for the adoption of Engineering institutions by industries.

(g) Prepare schemes for development of community Polytechnics.

(h) Arrange industrial residency for training of teaching faculty members in industries.

(i) Identify special areas of training for the teachers in industrial personnel at various levels in the institutions.

(j) Devise continuing education programmes for teachers in industry and for industrial personnel in institutions.

(iii) In the Institution level, the board shall—

(a) Set up advisory committee consisting of teachers from the institution and experts from industries to solicit and recommend problems from industries on research design, development and product, and also to assist the institution in planning implementation and supervision of training programme.

(b) Suggest norms for the use of sophisticated costly equipment in the institution and industries for mutual benefits.

(iv) The duration of the Board will be four years and shall meet at least twice a year. The convener is authorised to convene the meeting of the Board, to keep the minutes and other records and to pursue the recommendations of the Committee. The Board shall have the status of First Class Committee of the State Government. The Board members shall be eligible for T.A. and D A. Admissible to the class I officers of the State.

(v) The anticipated annual expenditure on this account is Rs. 20,000 towards T.A. and D A. of the members which can be met from "277F (h) 6— Industrial Residence."

By order of the Governor,
M.S.K. RAMASWAMY,
Commissioner and Secretary to Government.

Appendix 4

LIST OF HEAD OF INSTITUTIONS

| <i>Name of Institution</i> | <i>Name of Head of Institution</i> |
|---|---|
| I. ENGINEERING COLLEGES | |
| 1. College of Engineering, Trivandrum. | Dr. S. Narayana Iyer |
| 2. Govt. Engineering College, Trichur | Prof. P.C. George |
| 3. T.K.M. College of Engg, Quilon | Prof. P.O J. Lebba |
| 4. N.S.S College of Engg., Palghat | Dr. V. Balakrishna Panicker |
| 5. M.A. College of Engineering, Kothamangalam | Prof. Aliyas Varghese |
| 6. Regional Engg. College, Calicut | Dr. S. Unnikrishna Pillai |
| II. POLYTECHNICS | |
| 1. Central Polytechnic, Trivandrum | Sri E. Narayana Iyer |
| 2. Govt. Polytechnic, Kottayam | 1. Sri K.R. Chandrasekharan 2. „ N.K. Chacko |
| 3. Govt. Polytechnic, Kalamassery | 1. „ N.K. Chacko 2. „ C.M. Venketeswaran |

| <i>Name of Institution</i> | <i>Name of head of Institution</i> |
|--|---|
| 4. M.T.I., Trichur | 1. Sri C M. Venkateswaran |
| | 2. „ K.S Sreenivasa Naik |
| 5. Sree Rama Polytechnic; Valapad | 1. „ N. Ganapathy Iyer |
| | 2. „ A Chandrasekharan |
| 6. Govt. Polytechnic, Perinthalmanna | „ V. Krishna Moosad |
| 7. Kerala Govt. Polytechnic, Calicut | „ P. Alavikutty |
| 8. Govt. Polytechnic, Cannanore | „ V K. Mohammed |
| 9. Govt. Polytechnic, Muttom, Idukki | „ N. K. Madhusoodanan |
| 10. Govt. Polytechnic, Palghat | „ N. Ramachandra Pisharady |
| 11. Govt. Polytechnic, Kothamangalam | „ P. George John |
| 12. Govt. Polytechnic, Meenangadi, Wynad | 1. „ M. Jayaraj |
| | 2. „ K. Varadarajan (from 30-6-'1984 to 27-9-84) |
| 13. Govt. Polytechnic, Palai | „ K K. Balakrishna Menon |
| 14. Govt. Polytechnic, Vennikkulam | „ K. Padmanabhakurup |
| 15. Institute of Printing Technology, Shoranur | „ V.K. Jawaharlal |
| 16. Sree Narayana Polytechnic, Kottiyam | „ N.K. Bahuleyan (Head of Section in-charge) |
| 17. N.S S Polytechnic, Pandalam | „ N. Bhaskarakurup |
| 18. Carmel Polytechnic, Alleppey | „ P. Balan |
| 19. Thiagarajar Polytechnic, Alagappanagar | „ Francis C. Joseph. |
| 20. Seethi Sahib Memorial Poly- technic, Tirur | „ K. Abdulla |
| 21. Swamy Nithyananda Polytechnic, Kanhangad | „ V.V Nambiar |
| III. WOMEN'S POLYTECHNICS | |
| 1. Women's Polytechnic, Trivandrum | „ Joseph Charles |
| 2. Women's Polytechnic, Ernakulam | „ M. Narayanan |
| 3. Do Trichur | Smt P.P. Khadeeja |
| 4. Do Calicut | „ M. Venkateswaran |
| IV. FINE ARTS | |
| 1. College of Fine Arts, Trivandrum | „ C.L. Porinchukutty |
| 2. R.V Institute of Fine Arts, Mavelkkara | „ T.A. Sukumara Menon |
| 3. Institute of Fine Arts, Trichur | „ V.S. Balakrishnan |
| V. SUPERVISORY DEVELOPMENT CENTRE KALAMASSERY | |
| | „ M. Rajendra Babu |

| <i>Name of Institution</i> | | <i>Name of head of Institution</i> |
|------------------------------|-------------------------------------|---|
| VI. JUNIOR TECHNICAL SCHOOLS | | |
| 1. | Junior Technical School, Nedumangad | Sri N. Lekshmana Iyer |
| 2. | „ „ Attingal | „ V. Surendran |
| 3. | „ „ Adoor | „ P.N. Mathew |
| 4. | „ „ Ezhukone | „ L. Mathew |
| 5. | „ „ Shertallai | „ P.C. Antony |
| 6. | „ „ Krishnapuram | „ T.M. Joseph |
| 7. | „ „ Pampady | 1. „ L. Mathew (upto 18-7-84) 2. „ T.I. Thomas (from 19-7-84) |
| 8. | „ „ Palai | „ V.J. Kuriakose |
| 9. | „ „ Perumbavur | „ T.D. Varunni |
| 10. | „ „ Koratty | 1. „ R. Sidharaman Nair (upto 31-5-'84) 2. „ R. Krishnankutty Nair (from 1-6-84 to 12-6-84) 3. „ P. K. Varkey (from 13-6-'84) |
| 11. | „ „ Kodungallur | „ P.M. Rajan |
| 12. | „ „ Trichur | „ C. Ramachandran |
| 13. | „ „ Kunnamkulam | „ K.V. Dharmarathnam |
| 14. | „ „ Chittur | „ K.P. Krishnanunni Nair |
| 15. | „ „ Shoranur | „ K. Venugopalan |
| 16. | „ „ Badagara | 1. „ O. Balakrishnan Nair, (Upto 25-6-1984) 2. „ K.A. Kuriako (from 26-6-1984) |
| 17. | „ „ Calicut | „ K.T. Kunhumoideen |
| 18. | „ „ Cannanore | „ A. Haridas |
| 19. | „ „ Mattannur | „ C.K. Gopalakrishna Pillai |
| 20. | „ „ Cheruvathur | „ K. Bhaskarapuduvai |
| 21. | „ „ Palghat | 1. „ P.A. Mohammed (upto 28-11-1984) 2. „ N. Ramachandran (from 29-11-1984) |
| 22. | „ „ Kuttippuram | „ A. Ramachandran |
| 23. | „ „ Sultanbatterry | „ C.K. Moosakoya |
| 24. | „ „ Adimali | 1. „ T.T. Thomas (Upto 18-7-1984) 2. „ C.J. Paul (1-8-1984 to 10-12-1984) 3. „ P.V. Skaria (from 10-12-84) |

| | <i>Name of Institution</i> | <i>Name of head of Institution</i> |
|---|---------------------------------------|--|
| 25. | Junior Technical School Manantoddy | Sri P.R. Kaitthikeyan |
| 26. | " Vannappuram | 1. ,, P.V. Skaria (Upto 3-12-84) 2. ,, C.J Paul (continuing) |
| 27 | " Kulathur (Neyyattinkara) | ,, K. Lekshmanan |
| 28 | " Naruvambram | ,, P.P Velayudhan Nambiar |
| 29 | " Teekoy | ,, K.K. Mohammed Yousef |
| 30 | " Payyoli | ,, K V Raveendian |
| 31 | " Mogral- puthur | ,, A P. Chakrapany |
| 32 | " Elanji | 1. ,, T.D Varunny (Upto 21-8-1984) 2. ,, R. Krishnankutty Nair (from 21-8-1984) |
| 33 | " Kulathu- puzha | ,, S. Madhusoodanakumar |
| 34. | " Manjeri | ,, K. Raman |
| VII. GOVT. COMMERCIAL INSTITUTES | | |
| 1. | Govt. Commercial Institute, | |
| 2. | " Trivandrum | ,, R Krishnankutty Nair |
| 3. | " Punalur | ,, V Levakumar |
| 4. | " Alleppey | Smt. Rema Devi, B. |
| 5. | " Ettumanoor | Sri V.A Joseph |
| 6. | " Kotha- mangalam | ,, S. Ramadathanunni |
| 7. | " Kanchiyar | ,, M.Sukumaran (till 9-4-84) |
| 8. | " Ernakulam | Smt K T. Suganthi |
| 9. | " Mala | Sri T.A Baby |
| | Palghat | 1. ,, S. Ramadathanunni (upto 7-4-84) 2. ,, C E. Gopakumar (upto 1-5-84) 3. Smt. V. Indira (from 2-5-84) |
| 10. | " Manjeri | Sri K Mohammed Abdul Rahman |
| 11. | " Qulandy | ,, K.P. Jyothiram |
| 12. | " Taliparamba | 1. ,, Mohana Prasad, G. (12-9-84 to 20-1-85) 2. ,, Aley, V.T. |
| 13. | " Meenangadi | ,, M. Sukumaran |

Appendix 5

STAFF POSITION 1984-85

| Category of Institution | Staff strength | | | | | | | |
|--|----------------|----|----------|----|-----------|-----|----------|----|
| | Class I | | Class II | | Class III | | Class IV | |
| | M | F | M | F | M | F | M | F |
| Engineering Colleges : | | | | | | | | |
| Government | 104 | 15 | 224 | 38 | 265 | 34 | 58 | 19 |
| Private | 86 | 4 | 122 | 54 | 261 | 19 | 55 | 4 |
| Regional Engineering College : | | | | | | | | |
| Quasi Government | 39 | .. | 112 | 16 | 174 | 26 | 60 | 7 |
| Polytechnics : | | | | | | | | |
| Government | 15 | .. | 248 | 27 | 631 | 93 | 153 | 45 |
| Private | 6 | .. | 131 | 12 | 215 | 31 | 75 | 12 |
| Women's Polytechnics (All Government) | 3 | 1 | 10 | 7 | 40 | 32 | 16 | 15 |
| Junior Technical Schools (All Government) | .. | .. | 34 | .. | 756 | 122 | 117 | 18 |
| Fine Arts Institutions (All Government) | 1 | .. | 15 | .. | 55 | 8 | 12 | 2 |
| Government Commercial Institution | .. | .. | 12 | 1 | 38 | 21 | 21 | 11 |
| Government Pre-Vocational Training Centre | .. | .. | .. | .. | 95 | 39 | 15 | 4 |
| Quasi Government Food Crafts Institute | .. | .. | 2 | 1 | 29 | 5 | 8 | .. |

Appendix 6

LIST OF TECHNICAL INSTITUTIONS IN KERALA

| <i>Sl. No.</i> | <i>Category.</i> | <i>Name of the Institution</i> | <i>Location</i> | <i>Management</i> |
|----------------|----------------------|------------------------------------|------------------|-------------------|
| (1) | (2) | (3) | (4) | (5) |
| I. | Engineering Colleges | College of Engineering | 1 Trivandrum | Government |
| | | Engineering College | 2 Trichur | " |
| | | T. K. M. College of Engineering | 3 Quilon | Private |
| | | M. A. College of Engineering | 4 Kothamangalam | " |
| | | N. S. S. College of Engineering | 5 Palghat | " |
| | | Regional Engineering College | 6 Calicut | Quasi Govt. |
| II. | Polytechnics | Government Polytechnic | 1 Kottayam | Government |
| | | " | 2 Kalamassery | " |
| | | " | 3 Perinthalmanna | " |
| | | " | 4 Cannanore | " |
| | | " | 5 Muttam | " |
| | | " | 6 Palghat | " |
| | | " | 7 Kalpetta | " |
| | | " | 8 Kothamangalam | " |
| | | " | 9 Palai | " |
| | | " | 10 Vennikulam | " |
| | | Central Polytechnic | 11 Trivandrum | " |
| | | Kerala Government Polytechnic | 12 Calicut | " |
| | | Sree Rama Polytechnic | 13 Valapad | " |
| | | Maharaja's Technological Institute | 14 Trichur | " |

| | | | | |
|-----------------------------------|----------------------------------|----|---------------|----------------|
| | S. N. Polytechnic | 15 | Kottiyam | Private |
| | N. S. S. Polytechnic | 16 | Pandalam | " |
| | Carmel Polytechnic | 17 | Alleppey | " |
| | Thiagarajar Polytechnic | 18 | Alagappanagar | " |
| | S. S. M. Polytechnic | 19 | Tirur | " |
| | Swami Nityananda Polytechnic | 20 | Kanhangad | " |
| III. Women's Polytechnic | Women's Polytechnic | 1 | Trivandrum | Government |
| | | 2 | Trichur | " |
| | | 3 | Calicut | " |
| | | 4 | Ernakulam | " |
| IV. Printing Technology Institute | Institute of Printing Technology | 1 | Shoranur | " |
| V. Junior Technical Schools | Junior Technical Schools | 1 | Attingal | All Government |
| | | 2 | Nedumangad | " |
| | | 3 | Adoor | " |
| | | 4 | Ezhukone | " |
| | | 5 | Shertallai | " |
| | | 6 | Krishnapuram | " |
| | | 7 | Pampady | " |
| | | 8 | Palai | " |
| | | 9 | Perumbavoor | " |
| | | 10 | Koratty | " |
| | | 11 | Kodungallur | " |
| | | 12 | Trichur | " |
| | | 13 | Kunnamkulam | " |
| | | 14 | Chittur | " |
| | | 15 | Manjeri | " |
| | | 16 | Shoranur | " |
| | | 17 | Badagara | " |

| (1) | (2) | (3) | (4) | (5) |
|---------------------------|-----|---------------------------------|--------------------|----------------|
| | | | 18 Calicut | All Government |
| | | | 19 Kuttipuram | " |
| | | | 20 Palghat | " |
| | | | 21 Adimali | " |
| | | | 22 Sulthan Battery | " |
| | | | 23 Cannanore | " |
| | | | 24 Mattannur | " |
| | | | 25 Cheruvathur | " |
| | | | 26 Manantoddy | " |
| | | | 27 Vannapuram | " |
| | | | 28 Kulathur | " |
| | | | " (Neyyattinkara) | " |
| | | | 29 Payyoli | " |
| | | | 30 Mogral Puthur | " |
| | | | 31 Elanji | " |
| | | | 32 Kulathupuzha | " |
| | | | 33 Teckoy | " |
| | | | 34 Naruvambram | " |
| VI. Commercial Institutes | | Government Commercial Institute | 1 Trivandrum | Government |
| | | | 2 Punalur | " |
| | | | 3 Alleppey | " |
| | | | 4 Ettumanur | " |
| | | | 5 Kanchiyar | " |
| | | | 6 Einakulam | " |
| | | | 7 Kothamangalam | " |
| | | | 8 Mala | " |
| | | | 9 Norani | " |
| | | | 10 Manjeri | " |
| | | | 11 Qulandy | " |

| | | | | |
|-------|--------------------------------|----|--------------------|----------------|
| | Institute of Diploma in Short- | 12 | Meenangadi | ” |
| | hand and Typewriting | 13 | Taliparamba | ” |
| | | 14 | Trivandrum | ” |
| VII. | Fine Arts Institutions | | | |
| | College of Fine Arts | 1 | Trivandrum | All Government |
| | Institute of Fine Arts | 2 | Mavelikkara | ” |
| | do | 3 | Trichur | ” |
| | | | | |
| VIII. | Industrial/T.G.M. Cen- | | | |
| | tres | | | |
| | Tailoring and Garment Mak- | 1 | Pattom | |
| | ing Training Centre | 2 | Quilon | |
| | | 3 | Tripunithura | |
| | | 4 | Narakkal | |
| | | 5 | Kalpathy | |
| | | 6 | Kondotty | |
| | | 7 | Badagara | |
| | | 8 | Dharmadam | |
| | | 9 | Payyanur | |
| | | 10 | Kumuli | |
| | | 11 | Thodupuzha | |
| | | 12 | Edappally | |
| | | 13 | Chawghat | |
| | | 14 | Mankade | |
| | | 15 | Ponnam | |
| | | 16 | Vengara | |
| | | 17 | Kuttichira | |
| | | 18 | Sulthanbattery | |
| | | 19 | Kasargode | |
| | | 20 | Trichur | |
| | | 21 | Mannarghat (SC/ST) | |
| | | 22 | Chathannur (SC/ST) | |

| (1) | (2) | (3) | (4) | (5) |
|-------------------------|-----|----------------------------|-----|--------------------|
| | | | 23 | Manantoddy (SC/ST) |
| | | | 24 | Agali (SC/ST) |
| | | | 25 | Sholayar (SC/ST) |
| | | | 26 | Kallada (SC/ST) |
| | | | 27 | Vaithiri (SC/ST) |
| | | | 28 | Peermedu (SC/ST) |
| | | | 29 | Rajkkad (SC/ST) |
| | | | 30 | Melukavu (SC/ST) |
| | | | 31 | Kottayam |
| | | Tailoring and Tailoring | 32 | Haripad |
| | | Trade School | | |
| | | do. | 33 | Devikulam |
| | | Government Industrial | 34 | Irinjalakuda |
| | | School | | |
| | | do. | 35 | Vadakkancherry |
| IX. Vocational Training | | Tailoring Training Centres | 1 | Parassala |
| | | | 2 | Pachallur |
| | | | 3 | Karumkulam |
| | | | 4 | Kanjiramkulam |
| | | | 5 | Maranallur |
| | | | 6 | Churayinkil |
| | | | 7 | Chengannur |
| | | | 8 | Kandala |
| | | Weaving Training Centres | 9 | Aralummodu |
| | | Composing and Printing | 10 | Vattiyoorkavu |
| | | Centre | | |

Government

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| | | | | |
|-----|---------------------------------|---------------------------------|------------------------|----------------|
| | Book Binding Centre | 11 | Palkulangara | ” |
| | Do. | 12 | Kulathur (Trivandru n) | ” |
| | Rattan Training Centre | 13 | Paraniyam | |
| X. | Pre-Vocational Training Centres | Pre-Vocational Training Centres | | All Government |
| | | 1 | Attingal | ” |
| | | 2 | Cannanore | ” |
| | | 3 | Kodungallur | ” |
| | | 4 | Manjeri | ” |
| | | 5 | Nedumangad | ” |
| | | 6 | Mattannur | ” |
| | | 7 | Kunnamkulam | ” |
| | | 8 | Koratty | ” |
| | | 9 | Pampady | ” |
| | | 10 | Krishnapuram | ” |
| | | 11 | Ezhukone | ” |
| | | 12 | Chittur | ” |
| | | 13 | Shoranur | ” |
| | | 14 | Cheruvathur | ” |
| | | 15 | Badagara | ” |
| | | 16 | Perumbavoor | ” |
| | | 17 | Shertallai | ” |
| | | 18 | Adoor | ” |
| | | 19 | Palai | ” |
| XI. | Food Craft Institute | Food Craft Institute | 1 | Kalamassery |
| | | Food Craft Extension Centre | 2 | Calicut |
| | | Do. | 3 | Trivandrum |

Appendix 7

DISTRICT-WISE DISTRIBUTION OF TECHNICAL INSTITUTIONS

| <i>Category</i> | <i>Trivandrum</i> | <i>Quilon</i> | <i>Alleppey</i> | <i>Pathanam- thitta</i> | <i>Kollayam</i> | <i>Idukky</i> | <i>Ermakulam</i> | <i>Trichur</i> | <i>Palghat.</i> | <i>Malappuram</i> | <i>Calicut</i> | <i>Wynad</i> | <i>Cannanore</i> | <i>Total</i> | <i>New</i> |
|--|-------------------|---------------|-----------------|-----------------------------|-----------------|---------------|------------------|----------------|-----------------|-------------------|----------------|--------------|------------------|--------------|------------|
| Engineering Colleges | 1 | 1 | .. | .. | .. | .. | 1 | 1 | 1 | .. | 1 | .. | .. | 6 | .. |
| Polytechnics | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 3 | 1 | 1 | 2 | 1 | 2 | 20 | 2 |
| Women's Polytechnics | 1 | .. | .. | .. | .. | .. | 1 | 1 | .. | .. | 1 | .. | .. | 4 | .. |
| Institute of Printing Technology | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | 1 | 1 | .. |
| Food Craft Institute | 1 | .. | .. | .. | 1 | .. | 1 | .. | .. | .. | 1 | .. | .. | 4 | 1 |
| College of Fine Arts | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. |
| Institute of Fine Arts | .. | .. | 1 | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | 2 | .. |
| Commercial Institute | 2 | 1 | 1 | .. | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 14 | 6 |
| Junior Technical School | 3 | 2 | 2 | 1 | 3 | 2 | 2 | 4 | 3 | 2 | 3 | 2 | 5 | 34 | .. |
| Pre-Vocational Training Centre | 2 | 1 | 2 | 1 | 2 | .. | 1 | 3 | 2 | 1 | 1 | .. | 3 | 19 | .. |
| Industrial School | .. | .. | .. | .. | .. | .. | .. | 2 | .. | .. | .. | .. | .. | 2 | .. |
| Vocational Training Centre | 5 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 5 | .. |
| Tailoring Training Centre | 6 | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 7 | .. |
| Tailoring and Garment making training centre | 1 | 2 | .. | .. | 2 | 4 | 3 | 3 | 3 | 5 | 2 | 2 | 3 | 21 | .. |
| Tailoring trade schools. | .. | .. | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | 2 | .. |
| T T T Extension centre | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | 1 | .. |
| Total | 24 | 8 | 9 | 4 | 11 | 9 | 14 | 19 | 12 | 10 | 13 | 6 | 14 | 153 | 9 |

Appendix 8

INTAKE CAPACITY AND COURSES-OFFERED

I. Engineering Colleges

A. Post-graduate courses

| <i>Course offered</i> | <i>Institute where offered</i> | <i>Intake</i> |
|--|--|---------------|
| (1) | (2) | (3) |
| 1. <i>Civil Engineering</i> | | |
| 1. Structural Engg. | College of Engineering, Trivandrum. | 6. |
| | Regional Engineering College, Calicut. | 10 |
| 2. Hydraulics | College of Engineering, Trivandrum. | 4 |
| 3. Soil Mechanics | “ | 6 |
| 4. Public Health Engg. | “ | 4 |
| 5. Transport and traffic Engineering | “ | 4 |
| 2. <i>Mechanical Engineering:</i> | | |
| 1. Heat power Engg. | College of Engineering, Trivandrum. | 4 |
| 2. Machine Design | College of Engineering, Trivandrum. | 4 |
| 3. Production Engg | Engineering College, Trichur. | 6 |
| 4. Refrigeration and Air conditioning | Regional Engineering College, Calicut. | 10 |
| 5. Propulsion Engg. | College of Engineering, Trivandrum. | 4 |
| 6. Industrial refrigera- tion and cryogenic Engineering. | T.K M College of Engi- neering, Quilon. | 5 |
| 3. <i>Electrical Engineering:</i> | | |
| 1. Power system | College of Engineering, Trivandrum. | 6 |
| 2. Machine Design | “ | 4 |
| 3. Control system | Engineering “ College, Trichur. | 6 |
| | Regional Engineering College, Calicut. | 10 |
| 4. Navigation & Guidance | College of Engineering, Trivandrum. | 4 |

| | (1) | (2) | (3) |
|---|--|-----|-----|
| 4. <i>Electronics and Tele-communication:</i> | | | |
| 1. Microwave Engg. | College of Engineering, Trivandrum. | | 6 |
| 2. Applied Electronics | " | " | 4 |
| 5. <i>Chemical Engineering process control:</i> | | | |
| Process control | Engineering College, Trichur. | | 6 |

B. Undergraduate Course

| Course | Intake | Where offered |
|--|--------|---|
| (1) | (2) | (3) |
| 1. Civil Engineering | 565 | All 6 Engineering Colleges |
| 2. Mechanical Engg. | 570 | " |
| 3. Electrical Engg. | 465 | " |
| 4. Electronics | 115 | Engineering Colleges at Trivandrum (50) Trichur (30) Quilon (35) |
| 5. Architecture | 30 | College of Engineering, Trivandrum. |
| 6. Chemical Engineering | 70 | Engineering College, Trichur (50) T. K. M. Engineering College, Quilon (20) |
| 7. Production-cum-plant Engineering | 25 | Engineering College, Trichur. |
| 8. Instrumentation and control system | 20 | N. S. S. College of Engg. Palghat. |
| 9. Production Engg. | 20 | T. K. M. Engg. College, Quilon. |
| 10. Applied electronics & instrumentation | 20 | College of Engineering, Trivandrum. |
| 11. Industrial Engineering | 15 | " |
| 12. Electrical Communica- tion | 15 | Engineering College, Trichur. |
| 13. Computer Science | 15 | Engineering College, Trivandrum, Trichur & T. K. M. College of Engineering, Quilon. (15 each) |

| (1) | (2) | (3) |
|--|------|---|
| 1. Civil Engineering | 55 | College of Engineering, Trivandrum (20) Engineering College, Trichur (20) T. K. M. College of Engineering, Ouzhen (15) |
| 2. Mechanical Engg. | 55 | Same as above. |
| 3. Electrical Engg. | 55 | |
| 4. Electronics | 20 | College of Engineering, Trivandrum. |
| 5. Chemical Engg. | 20 | Engg. College, Trichur |
| II. College of Fine Arts: | | |
| Degree courses in Fine Arts. | | |
| 1. Painting | } 30 | College of Fine Arts, Trivandrum |
| 2. Sculpture | | |
| 3. Applied Art | | |
| III Polytechnics: | | |
| A. Post Diploma courses | | |
| 1. Industrial electronics | 10 | Central Polytechnic, Trivandrum. |
| 2. Air conditioning and Refrigeration | 10 | Govt. Polytechnic, Kalamassery. |
| 3. Foundry | 10 | M. T. I., Trichur. |
| 4. Television | 10 | Central Polytechnic, Trivandrum. |
| 5. Computer application | 10 | „ |
| B. Diploma Courses | | |
| 1. Civil Engineering | 821 | All Polytechnics Except Palghat and Palai |
| 2. Mechanical Engineering | 841 | All Polytechnics except Palai and Mallappally |
| 3. Electrical Engineering | 721 | All except Palghat, Kanhangad, Palai and Mallappally |
| 4. Automobile Engineering | 85 | Kalamassery and Kanhangad |
| 5. Chemical Engineering | 60 | Kalamassery and Calicut |
| 6. Textile Technology | 60 | Central Polytechnic, Trivandrum and Govt. Polytechnic, Cannanore |

| (1) | (2) | (3) |
|---------------------------------------|-----|--|
| 7. Electronics | 270 | Central Polytechnic, Trivandrum Govt. Polytechnics, Palghat, Kothamangalam, Mallappally, Palai and S.S.M. Polytechnic, Tirur, Women's Polytechnic, Trichur, Calicut and Ernakulam. |
| 8. Polymer Technology | 30 | Govt. Polytechnic, Kottayam. |
| 9. Printing Technology | 60 | Institute of Printing Techno- logy, Shoranur. |
| 10. Instrument Technology | 55 | Women's Polytechnic, Trivandrum and Govt. Polytechnic, Palghat and Palai. |
| 11. Commercial Practice | 195 | Women's Polytechnics at Trichur, Calicut, Trivandrum, Ernakulam and Govt. Poly- technic, Kottayam. |
| 12. Costume Design and Dressmaking | 90 | Women's Polytechnics at Trichur, Trivandrum and Calicut |
| 13. Wood Technology | 15 | Govt. Polytechnic, Cannanore |
| 14. Tool and Die Engine- ering | 15 | Govt. Polytechnic, Calicut |
| 15. Architecture | 15 | Women's Polytechnic, Ernakulam |

C. Part-time Diploma Courses

| | | |
|---------------------------|----|--|
| 1. Civil Engineering | 72 | Central Polytechnic, Trivandrum, Govt. Polytechnic, Kalamassery, M. T. I., Trichur and Govt. Polytechnic, Calicut. |
| 2. Mechanical Engineering | 72 | Same as above |
| 3. Electrical Engineering | 72 | Do. |
| 4. Textile Technology | 15 | Central Polytechnic, Trivandrum. |

D. Certificate Courses in Textile Technology

| | | |
|--------------------|----|---|
| Textile Technology | 60 | Central Polytechnic, Trivand- rum and Govt. Polytechnic, Cannanore. |
|--------------------|----|---|

| (1) | (2) | (3) |
|-----|-----|-----|
|-----|-----|-----|

E. Craft Courses in Polytechnic

| | | |
|---|------|---|
| 1. Rattan and Basket making | } 36 | Central Polytechnic, Trivandrum |
| 2. Lacquer work | | |
| 3. Carpet and Durrie weaving | | |
| 1. <i>Fine Arts Institutions</i> | 60 | Ravi Varma Institute of Fine Arts, Mavelikkara and Institute of Fine Arts, Trichur. |
| <i>Food Crafts Institute Certificate Courses:</i> | | |
| 1. Craftmanship in Crockery | 40 | Food Craft Institute, Kalamassery and Extension Centre, Calicut and Trivandrum |
| 2. Craftmanship in Bakery and Confectionary | 15 | Food Craft Institute, Kalamassery |
| 3. Canning and Food Preservation, Craftmanship | 15 | Food Craft Institute, Kalamassery |
| 4. Hotel Reception and Book keeping, Craftmanship | 40 | Food Craft Institute, Kalamassery, Extension Centre, Calicut and Trivandrum. |
| 5. Restaurant and Counter Service | 40 | do. |

B. Short Term Courses

| | | |
|----------------------------------|----|---|
| 1. Cookery | 40 | Food Craft Institute, Kalamassery; Extension Centre, Calicut and Trivandrum |
| 2. Bakery and Confectionary | 20 | Food Craft Institute, Kalamassery |
| 3. Canning and Food Preservation | 10 | do. |

| (1) | (2) | (3) |
|--|-----|---|
| <i>VI. Commercial Institutions and Part-time Diploma.</i> | | |
| Part-time Diploma in Shorthand and Typewriting | 30 | Institute of Part-time Diploma Course in Typewriting and Shorthand, Trivandrum. |
| Certificate Course (In each Institute) | 60 | All Commercial Institutes |
| <i>VII. Short-term (One year) Technical Course of Post S.S.L.C. level I.</i> | | |
| 1. Building Technology | 30 | Govt. Polytechnic, Calicut |
| 2. Maintenance Technology | 30 | Junior Technical School, Manjeri. |
| 3. Welding Technology | 30 | Junior Technical School, Nedumangad. |
| 4. Refrigeration and Airconditioning | 30 | Junior Technical School, Sherthalai |
| 5. Highway Engineering | 30 | Govt. Polytechnic, Perinthalmanna |
| 6. Public Health Engineering | 30 | Govt. Polytechnic, Kottayam. |
| 7. Furniture Technology | 30 | Junior Technical School, Badagara, Cannanore. |
| 8. Surface Furnishing Technology | 30 | Junior Technical School, Badagara. |
| 9. Tailoring and Garment making | 30 | Junior Technical School, Mattannur |
| 10. Horology | 15 | Junior Technical School, Adoor. |
| 11. Printing Technology | 15 | Junior Technical School, Kunnamkulam. |
| 12. Forging | 15 | Junior Technical School, Shoranur. |
| 13. Electronics | 15 | Junior Technical School, Cheruvathur. |
| 14. Fibre reinforced plastic | 20 | Central Polytechnic, Trivandrum. |

VIII. Tailoring, Garment making Centres/Schools:

VOCATIONAL TRAINING CENTRES

| (1) | (2) | (3) |
|---------------------------------|------------|---|
| <i>Two year Courses:</i> | | |
| 1. Book Binding Centre | 60 | Book Binding Centre, Palkulangara and Kulathur |
| 2. Rattan | 15 | Rattan Training Centre, Paraniyam |
| 3. Composing and Printing | 30 | Composing and Printing Centre, Vattiyoorakavu |
| 4. Weaving | 15 | Weaving Training Centre, Aralumood. |
| 5. Tailoring and Embroidery | 40 | Govt. Industrial Schools, Irinjalakuda and Wadakkancherry. |
| <i>One year Courses:</i> | | |
| Tailoring and Garment making | 20 each | All Tailoring and Garment making Centres, Tailoring Trade School and Tailoring Training Centres. |

IX. Junior Technical Schools:

In 34 J. T. School spread all over the State as given earlier about 31 different trades are offered with a total intake of 2060.

X. Pre-vocational Training Centre:

Training in about 20 trades are offered through Pre-vocational Training centres attached to Junior Technical Schools, Attingal, Manjeri, Kodungalloor, Cannanore, Nedumangad, Chittur, Cheruvathur, Kunnankulam, Koratty, Pampady, Palai, Krishnapuram, Shertalai, Ezhukone, Shoranur, Adoor, Mattannur, Perumbavoor and Badagara. Total intake is 380.

XI. Vocational Courses at Plus 2 level is offered in various trades in the Junior Technical Schools at Cheruvathur, Attingal, Badagara, Kodungallur, Manjeri, Shoranur, Adoor, Pampady, Chittur, Mattannur, Palai, Ezhukone, Perumbavoor, Cannanore, Shertalai, Kunnankulam, Koratty, Nedumangad and Krishnapuram.

Appendix 9

SCHOLARSHIP AND STIPENDS DURING 1984-85

| Category of Institution | No. of Institution | Scholarship | | Stipend | |
|---------------------------------------|--------------------|-----------------|----------------|----------------|----------------|
| | | No. of students | Amount (Lakhs) | No of students | Amount (Lakhs) |
| 1. Government Engineering Colleges | 2 | 487 | 14.43 | 2185 | 9.78 |
| 2. Private Engineering Colleges | 3 | 280 | 3.69 | 730 | 7.90 |
| 3. Government Polytechnics | 13 | 35 | 0.35 | 1910 | 13.60 |
| 4. Private Polytechnics | 6 | 25 | 0.25 | 1640 | 12.75 |
| 5. Women's Polytechnics | 4 | 35 | 0.17 | 615 | 1.77 |
| 6. Junior Technical School | 34 | 395 | 1.10 | 690 | 4.22 |
| 7. Pre-vocational Training Centre | 19 | .. | .. | 498 | 1.58 |
| 8. College of Fine Arts | 1 | .. | .. | 74 | 0.43 |
| 9. Fine Arts Institutions | 2 | 1 | 0.01 | 64 | 0.30 |
| 10. Food Craft Institute | 3 | .. | .. | 95 | 0.59 |
| 11. Government Commercial Institution | 8 | .. | .. | 16 | 0.08 |
| 12. T.G.M. Training Centre | 35 | .. | .. | 85 | 0.80 |
| 13. Vocational Training Centre | 12 | .. | .. | 30 | 0.20 |

Appendix 10

HOSTEL FACILITIES 1984-85

| Sl. No. | Name of the Institution | No. of hostel Blocks | Intake (Sanctioned) |
|------------------------------|---|----------------------|---------------------|
| <i>Engineering Colleges:</i> | | | |
| 1. | College of Engineering, Trivandrum | 3 | 500 |
| 2. | Engineering College, Trichur | 3 | 356 |
| 3. | T. K. M. College of Engineering, Quilon | 2 | 400 |
| 4. | N. S. S. College of Engineering, Palghat | 3 | 385 |
| 5. | M. A. College of Engineering, Kothamangalam | 3 | 340 |
| 6. | Regional Engineering College, Kozhikode | 6 | 1160 |

APPENDIX 10—(Contd.)

| <i>Sl. No.</i> | <i>Name of Institution</i> | <i>No. of hostel Blocks</i> | <i>Intake (Sanctioned)</i> |
|------------------------------|---|-----------------------------|----------------------------|
| <i>Polytechnics:</i> | | | |
| 1. | Central Polytechnic, Trivandrum | 1 | 180 |
| 2. | Government Polytechnic, Kottayam | 1 | 100 |
| 3. | „ „ Kalamassery | 2 | 261 |
| 4. | M. T. I., Trichur | 1 | 108 |
| 5. | Government Polytechnic, Perintalmanna | 1 | 180 |
| 6. | Kerala Government Polytechnic, Calicut | 2 | 280 |
| 7. | Government Polytechnic, Muttom | .. | .. |
| 8. | Sree Rama Polytechnic, Valapad | .. | .. |
| 9. | Government Polytechnic, Palghat | .. | .. |
| 10. | „ „ Kalpatta | .. | .. |
| 11. | „ „ Kothamangalam | .. | — |
| 12. | „ „ Cannanore | 2 | 180 |
| 13. | S. N. Polytechnic, Kottayam | 1 | 90 |
| 14. | N. S. S. Polytechnic, Pandalam | 1 | 104 |
| 15. | Carmel Polytechnic, Alleppey | 1 | 150 |
| 16. | Thyagarajar Polytechnic, Alagappanagar | 2 | 270 |
| 17. | S. S. M. Polytechnic, Tirur | 1 | 165 |
| 18. | Swamy Nityananda Polytechnic, Kanhangad | — | .. |
| <i>Women's Polytechnics.</i> | | | |
| 1. | Women's Polytechnic, Calicut | 1 | 70 |
| 2. | „ „ Ernakulam | .. | .. |
| 3. | „ „ Trichur | 1 | 80 |
| 4. | „ „ Trivandrum | 1 | 33 |

**NAME OF AGENTS APPOINTED FOR THE SALE OF
GOVERNMENT PUBLICATIONS IN THE KERALA STATE**

1. S. Paul and Sons, Cannanore.
2. G. Vital Prabhu, News Agent, Manjeswar.
3. M/s K. R. Brothers, Calicut.
4. M/s Moulavi Book Depot, Kasargode.
5. Kottayi Gopalan, Tellicherry.
6. M/s Touring Book Stall, Calicut.
7. M/s K. P. Ahmed Kunhu and Bros., Cannanore.
8. M/s George Press, Ottappalam.
9. M/s Pallipat Stores, Irinjalakuda.
10. M/s St. Joseph's Press, Perintalmanna.
11. M/s Travancore Law House, Ernakulam.
12. M/s P. K. Brothers, Huzur Road, Calicut.
13. M. V. Johnson, Law Book Seller, Near Civil Court, Tellicherry.
14. Manager, Higginbothams (Private) Ltd., Trivandrum.
15. M/s Current Books, Publishers and Book Sellers, Trichur.
16. M/s The Educational Supplies, Book Sellers, Publishers and Printers, Palghat.
17. H. and C. Stores, Dealers in Books, Kunnankulam.
18. Manager, Reddier Press and Book Depot, Trivandrum.
19. N. Parameswaran Pillai, Stamp Vendor, Pulimood, Trivandrum.
20. M/s Educational Supplies, Depot, Trivandrum.
21. M/s Jayachandra Book Depot, Chalai, Trivandrum.
22. S. Subramonia Iyer, Book Seller and Stamp Vendor, Kazhakocttam, Trivandrum.
23. N. Parameswaran Pillai, Alum-moodu Veedu, Stamp Vendor, Kottarakkara.
24. S. Krishna Iyer, Stamp Vendor, Ayurveda College View, Trivandrum.
25. N. Neelakantha Iyer, Stamp Vendor, Padmanavilasaam Street, Fort, Trivandrum.
26. Manager, K. V. Press and Book Depot, Main Road, Attingal.
27. K. Bhaskaran Nair, News Agent, Trivandrum.
28. Proprietor, Kerala Book House, Kodungalloor.
29. K. K. Raghava Menon, Popular Book Depot, Kodungalloor.
30. C. M. Book Stall and Publishers, Parayil, Kunnankulam.
31. A. Jose, Proprietor, S. V. Press and Book Depot, Neyyattinkara.
32. M. Paramanandan, Proprietor, Ambika Press and Book Depot, Neyyattinkara.
33. The New Order Book Company, Ellis Bridge, Ahmedbad-6.
34. M/s Pai and Company, Broadway, Ernakulam-1.
35. S. Hartharakrishna Iyer, Vinayaka Book Stall, Pazhavangadi, Fort, Trivandrum.
36. K. P. Gopalan, Swaraj Book Stall, Court Road, Quilandy.
37. Ambat Sekara Menon, Proprietor, Menon Stores, Chittur, Cochin.
38. M. I. Abraham, News Agent and Book Seller, Punalur P. O.
39. K. G. Thomas, K. V. Book Depot, Chengannur.
40. C. L. Joseph, The National Stores and Book Sellers, Thana, Irinjalakuda.
41. N. Krishnamoorthy, Merchant Near Post Office, Manantody.
42. T. I. Joseph & Sons Prakasham Press and Book Depot, Main Road, Irinjalakuda.
43. P. Radhakrishna Pillai, Sivavilasaam, Kizhakkakara, Kottarakkara.
44. Vidyarambham Press and Book Depot (P) Ltd., Mullaikkal, Alleppey.
45. K. S. Kumara Pillai, Sreekumar Stores, Nedumangad.
46. E. K. John, Stamp Vendor, C/o Popular Trading Co., Kottayam.
47. Secretary, Co-operative Printing and Publishing House Ltd. No. 736. (Mahatma Press) Town Hall Road, Trichur.
48. P. K. Chacko, Proprietor, Peckayee Trades, Kottayam.
49. Managing Director, National Book Agencies (P) Ltd. Calcutta.
50. Janatha Book Stall, Near P. M. G's. O.M.C. Trivandrum.
51. Secretary, Govt. Servants Co-operative Society Ltd. No. A 208, Alleppey.
52. Manager, St. Thomas Press, Palam.
53. The National Stores, Cannanore.

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54. K. Kudhambu, Bharathi Printing Press, Kanhangad (P. O.), Calicut.
55. N. Chellappan Pillai, Naravana Press and Book Stall, Attingal
56. Koshy P. John, Vidhyarthi Mitram Press, & Book Depot, Kottayam.
57. Y. Habeebulla, Proprietor, New Book Centre, Near Collectorate, Quilon-9.
58. Vijayakumar Jain, Prabhu Book Services, Guirgaon, Hariyana.
59. Haji Abdul Rahman Sait, Merchant, Kesavadasapuram, Trivandrum-1.
60. M. Balan, Manager, City Book Stall, K. S. Road, Ottappalam.
61. K. Kunhraman, Manager, Jaya Stores, Vazhuthacaud, Trivandrum.
62. P. N. Narayana Pillai, M. N. Printers, Adoor, Quilon district.
63. V. K. Noohu, Book Seller, Ansari Book Stall, Nilamel.
64. A. Narayanan Potti, Book Seller, Near Civil Station, Quilon-9.
65. G. Prabhakaran Nair, Manager, Premier Book House, Moovattupuzha.
66. Manager, Desabhimani Book House, M. G. Road, Trivandrum-1
67. K. V. Devassy, Manager, Perintalmanna Printing Works, Perintalmanna.
68. K. Bhaskara Pillai, Prahula Book Depot, Attingal P. O.
69. K. A. George, Proprietor, Students Stores, 74/XII, Sub Jail Road, Alwaye.
70. V. K. N. Pillai, Polayil Veedu, Mangilkulangara, Quilon-12
71. V. Gopinathan Nair, Book Seller, Kacheri Junction, Nedumangad.
72. A. Poornambal, Proprietor, Bhagya Enterprises, M. G. Road Trivandrum-1.
73. M. C. Cheriyian, M. C. C. Book Depot, Chengannur.
74. M/s Radha Stores, Mann Road Shoranur-1
75. A. T. A. Mustafa, Mustafa Book Company, P.O. Payangad, Cannanore district.
76. S. M. C. Mani, Babu Brothers Book Depot, R. S. Junction, Alwaye-1.
77. P. C. Cheriyian, St. Mary's Press and Book Depot, Changanacherry-1.
78. K. J. Cheriyian, Manager, Victory Book House, Moovattupuzha.
79. R. Radhakrishnan Nair, Proprietor, Modern Books, Near Boat Jetty Road, Quilon.
80. Smt. K. Thankamma, M/s M. G. Book Stall Kottayam.
81. M. A. Joseph, Proprietor, House of Knowledge Publishers and Books Sellers, Round South, Trichur.
82. V. Krishna Iyer, Retired R. F. O., F. C. 18/201, Valachala, Trivandrum.
83. M/s New Ladies Fancy Centre, Manarghat, Trichur district.
84. T. V. Thomas Pamcker, Indu Book Depot, Angamaly P.O., Erukkulam Dt.
85. M. M. Varghese, Proprietor, Book Centre, West Naga, Guruvayoor.
86. K. J. Raphael, Santha Book Stall, G. b. Road, Sultanpet, Palghat.
87. M/s Asoka Book Agency, 2/27, Roop Nagar, Delhi-110 007.
88. M/s St. Joseph's Book Stall, Convent Square, Alleppey.
89. N. Sadanandan, Proprietor, Sadananda Printers Publishers & Book Sellers' P. O. Alathur, Palghat.
90. K. R. Sukumaran Nair, Sukumar Book Stall, i. C. 23/652, Thampannoor Trivandrum
91. V. G. Abraham, St. Thomas Press and Book Depot, Kozhencherry.
92. P. Aravindakshan, Book Seller, Near Post Office, Kottakkal.
93. P. Vasu, M/s P. V. Book Seller, Stationery and Book Binders, S. M. Street, Calicut-1
94. George Avokaran, Manager, Janatha Stores College Road, Trichur I.
95. M/s D. K. Book Organisation, 74-D, Anand Nagar, (Inter lock), Delhi-110 035.
96. P. R. Dilipkumar, Asok Traders, Market Junction, Kottarakkara.
97. R. Viswanathan, Viswanatha Stores, P. O. Chelakkara, Trichur Dt.
98. M/s Vijnanabhavan Book Stall, Publishers and Book Sellers, Kayamkulam Alleppey.
99. N. Krishnan Nair, Edupadical Puthu Veedu, Kattakada, Neyyattinkara.
100. K. Mohanan, Proprietor, S. N. V. Press and Book Depot, Kottarakkara.
101. M/s Students Centre, Ottappalam
102. T. G. Jacob, Pavas House, Inchavilla, Permad, Quilon
103. K. Ali, Ali Stores, Badagara.
104. C. Parameswaran Nair, Ceepee Books and Periodicals, Kathamukku Trivandrum.

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105. K. C. Balan Nair, Book Centre, Opp B E M.P. High School, Tellicherry-1.
106. P. Madhavan Pillai, M. S. Book Depot, Main Road, Quilon.
107. N. G. Raveendranathan Nair, Rajashree Traders, P. P. Road, Perumbavoor.
108. M. Subbain, Student's Stores, Book Seller, Kesavadasapuram, Trivandrum.
109. M/s Jyothi Book Centre, Book Centre, Round west, Trichur.
110. M. P. Rajendran M/s Gift House, Convent Road, Badagara.
111. A. P. Thankappan Nair, New College Book Stall, Book Sellers, Muvattupuzha.
112. P. Hamza, Premier Book Stall, Up hill, Oppo. Govt. Hospital, Manjeri Road, Malappuram.
113. P. R. Rajasekharan, Sree Lakshmi Vilasam Book Depot, Broadway, Ernakulam.
114. K. T. Varkey, Sam Agencies, Ponnunnam.
115. R. Radhakrishna Pillai, Kallidikkil Veedu, Chadayamangalam
116. K. Vasu Pillai, Nallur Mam Mandiram, Kanjiracoda, Kundra, Quilon Dt.
117. N. Bhoothalingom Pillai, Swamy Book Centre, Opp Ayurveda College, Trivandrum.
118. V. Ramakrishna Pillai, Proprietor, Raja Stores, Karunagappally.
119. N. E. Balakesavan, Modern Book Centre, T. C. 26/1599 G.P.O. Junction, Trivandrum.
120. Proprietor, Book-Stall, S M Street, Calicut.
121. R. Velappan Pillai, Proprietor, Santha Book Depot, C.C.S.B. Board, Alleppey.
122. A. Narayanan Nair, Retired Deputy Secretary, to Govt., Block I (up stairs) Santhunagar, Trivandrum.
123. S. Parameswaran Namboodiri, Saradhi Book Dealers, Kottayam.
124. M/s Parishat Book Stall, Court Road, Manjeri
125. M. M. Job Book Centre, Ottappalam.
126. M/s General Papers, Paper, Books & Stationery, Court Road, Perintalmanna.
127. K. A. Mathew, S. H. Book Stall, Pandalam.
128. M/s Guru Book Stall, Palayam Road, Calicut.
129. M/s Sahitya Prayarthika Co-operative Society, Proprietor of National Book Stall, Kottayam,
130. A. Sreedharan, Kottuvilil Veetil, Cheravallymuri, Kayamkulam.
131. Eisamma Joseph, Proprietor, Priya Stores Thodupuzha
132. T. Kanaran, Santha Stores, Court Road, Tellicherry
133. K. Thiruvikraman Warriar, National Book Stall, Kayamkulam
134. V. Ayyappan Nair, Devi Book Stall, Katukada, Trivandrum.
135. Executive Secretary, Kerala Caidamom Grovers Union, Gizi Bhavan, Vandanmettu, Iduski.
136. Pappos Book Stall, Edodi, Badagara, Calicut
137. V. Sankarankutty Menon, S M. Book Stall, Irinjalakuda.
138. Royal Agency, Camp Bazaar, Cannanore.
139. P. H. Syed Muhammed, Janatha Book Stall, Opp K S R. F.C, Changanacherry.
140. K. A. Indira Devi, Book Centre, Y M.C A. Road, Kottayam.
141. K. R. Muraliedharan, Chandra Press & Book Depot Harippad.
142. N. Kumaran, Proprietor, Kumar Printers, Ottappalam
143. N. Elsy, Proprietor, Pitman's Commercial Institute, Sasthamangalam, Trivandrum.
144. M. J. Ponnamma, Book Seller, Krishna Mandiram, Kappil Mukku, Kayamkulam
145. V. N. Gopinathan, Avithara Puthen Veedu, Vennyoor, Trivandrum.
146. Manager, Desabhumani Book House, K.S.R.T.C. Bus Station, Alleppey.
147. T. Mohammed Hussan, Vadakke Panayullathul Parambil, Thruvil, Ezhamkulam, Quilon.
148. M. K. Sumathy, Proprietor, Wynad Book House, Down Bazaar Manantoddy.
149. G. Velappan, Aeyus Books, College Road, Pathanapuram,
150. R. Krishnan Nair, Malaya Printing Works and Book Stall, Attingal.
151. P. Bhramha Nayakom Pillai, Jayashree Stores, Nedumangad, Trivandrum.
152. K. K. Pavithran, Reekha Stationery, Books & Pen Dealers, Court Road Tellicherry.

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- 153 N. X. Varghese, Law Book Sellers Kadavanthara, Cochin.
 154. Y Mohammed Ali, Amuna Book Stall, Manjeri.
 - 155 K. Pazhanimala, Students Corner, Alathur, Palghat.
 156. K. Lalitha Bharat Publication., Ottappalam
 157. James Lukose, M Sc., Cherupushpam Book Depot, Fala.
 158. M. S Gopalan, M/s B B S. Books, Kottavam.
 159. Thomas Mathew, Aby Nivas, Service Bureau Book Stall, P. B. No. 2
Kumarakom P. O., Kottayam Dt.
 160. N V. Yanga Raman, Proprietor, Swamy Law House, Dwara Swamy Iyer
Road, Ernakulam
 161. Alex Abraham, Proprietor of A-One Book House, Stamp Vendor, K. M. C.
X/144 K. K Road, Kottayam.
 162. E. K. Sadasivan Sastry, Proprietor of Students Book Centre, Private Bus Stand,
Shertallay P. O.
 163. M/s Vidhyarambam Publishers, Mullakkal, Alleppey.
 164. H. Subramanian, Bunk No. 168 Santhosh Book House, Station Road,
Thampanoor, Trivandrum.
 165. M. I. Itty, Aroma Book Stall, Mavelikkara
 166. M. S. Kumar, Proprietor, Chandra Press & Book Depot Branch, Manjalikulam
Road, Trivandrum
 167. Radhakrishnan, R., Proprietor, Rehama Book Houses, Oochira.
 - 168 Smt. R. Indira Bai, Proprietor, Puthakasala, Church Road, Alleppey.
 169. C. I Vaighese, Central Book Stall, Palace Road, Trichur.
 170. K. B. Reghukumar, Kennel Book Centre, Kachery Junction, Ambalapuzha.
 171. Abraham Varghese, S. V. Press & Book Depot, Changannacherry.
 - 172 Griya Muthukrishnan, Proprietor, S. T. Reddiar & Sons, Main Road, Quilon.
 - 173 P. K. Madhavan Nair, Books and Periodicals, Trivandrum.
 174. Philip K. Joseph, Proprietor, Jose Books, Thattarambalam.
 175. P. Viswanathan, Proprietor, Indira Press, 13/88 Palayam, Calicut.
 - 176 M V. Johnson, Managing Partner, Law Books Centre, Banarji Road, Cochin.
 - 177 K. P. Vujayakumar, Proprietor, Aritha Publications, College Road, Sasthamcotta
 - 178 Smt. N Sathi, Managing Partner, Bobby Book Centre, Kuthuparamba,
Cannanure
 179. Sri Parathodu Antony, Giriprabha Book House, Idukki
 180. N. V Muhammed Abdul Rahiman, Proprietor, Mathrubhoomi, Book Stall,
Malappuram.
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