



GOVERNMENT OF KERALA

ADMINISTRATION REPORT
OF THE
Technical Education
Department

FOR THE YEAR 1986-87

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ERNAKULAM—1988**

ADMINISTRATION REPORT
OF THE
TECHNICAL EDUCATION DEPARTMENT

FOR THE YEAR 1986-87

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The Government of Kerala
1988



HIGHER EDUCATION (G) DEPARTMENT

G.O. (P) 190/87/H. Edn. dated, Trivandrum, 2nd July 1987

Abstract.—Education—Technical—Administration Report of Technical Education Department for the year 1986-87—Reviewed.

Read.—Letter No. L 4-57175/86 dated 8th April, 1987 from the Director of Technical Education, Trivandrum.

ORDER

1. Recorded.

2. Dr. P. J. George continued as Director of Technical Education upto 30th June 1986. Dr. T. S. Ramanatha Iyer was appointed as Director of Technical Education on 1st July 1986 on the retirement of Dr. P. J. George. Sri Panduranga Das was the Administrative Officer.

3. The Office of the Director of Technical Education was functioning in the ground floor of the Electricity Board building in the Power House Road.

4. The following institutions functioned under the direct control of the department:

Sl. No.	Category	Management			Total
		Govt.	Private	Quasi Govt.	
(1)	(2)	(3)	(4)	(5)	(6)
1.	Engineering Colleges	3	3	1	7
2.	Polytechnics	14	6	..	20
3.	Women's Polytechnics	4	..	..	4
4.	Institute of Printing Technology	1	..	..	1
5.	Food Craft Institute and Extension Centre	..	..	7	7
6.	College of Fine Arts	1	..	..	1
7.	Institute of Fine Arts	2	..	..	2
8.	Commercial Institutions	17	..	..	17
9.	Technical High Schools	47	..	..	47
10.	Pre-Vocational Training Centres	19	..	..	19
11.	Government Industrial Schools	2	..	..	2

Sl. No.	Category	Management			Total
		Govt.	Private	Quasi Govt.	
(1)	(2)	(3)	(4)	(5)	(6)
12.	Vocational Training Centres	5	..	..	5
13.	Tailoring Training Centres	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.	Supervisory Development Centre	1	..	..	1
18.	Others	..	..	3	3*
	Total	156	9	12	177

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 of students are given below:—

Category	Intake
Engineering Colleges (Under Graduate Courses) (Including Regional Engineering College, Calicut)	2494
Postgraduate Courses	126
Part-time Degree Courses	200
College of Fine Arts (Degree course)	35
<i>Polytechnics:</i>	
Post Diploma Courses	95
Diploma Course	3544
Part-time Diploma Courses	243
Certificate Course in Textile Technology	60
<i>Technical High Schools:</i>	
T.H.S.L.C. Course	2500
Plus-two level Vocational Course in Technical High Schools	760
Fine Arts Institute Courses	60
Food Craft Institute Courses	180
Commercial Institute Diploma Courses	760
Tailoring and Garment Making Training Courses	740
Other Craft Courses	130

* Autonomous Institutions

6. The total provision under the State Plan for the department during the year 1986-87 was Rs. 290 lakhs of which Rs. 77 lakhs were for works. This fund under works was operated by the Public Works Department.

7. The total expenditure (tentative) under the State Plan till the end of March, 1987 was Rs. 294.52 lakhs. The percentage of expenditure out of the total provision was 101.49.

8. Under the Centrally Sponsored Scheme the expenditure was Rs. 107 lakhs (112.63%) against the provision of Rs. 95 lakhs.

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

Achievements.—(i) During the previous years of the Plan period a number of new Institutions and courses were started. Therefore, emphasis was given to the consolidation and development of these institutions and courses during the year.

(ii) In spite of the financial constraints it has been decided to start three Government Engineering Colleges, 2 Government Polytechnics and one Women's Polytechnic, 3 Food Craft Institute Extension Centres in the State during the Plan period. Of the above, one Government Engineering College has started functioning at Mangattuparamba, Cannanore and the Food Craft Institute Extension Centres during the year. The Polytechnics and Women's Polytechnic will start functioning during the academic year 1987-88. The other Engineering Colleges are expected to start in the remaining years of the Plan.

(iii) *New Technical Institutions.*—Three Technical High Schools sanctioned during the previous year started functioning at Ulloor in Trivandrum District, Purappuzha in Idukki District and Naduvil in Cannanore District during the year.

(iv) *New courses.*—(a) In the College of Engineering, Trivandrum and T.K.M. College of Engineering, Quilon, Post-graduate courses in Master of Computer Application were started with an intake of 30 each. A Post-Diploma course in Industrial Safety Engineering was started with an intake of 25 at Supervisory Development Centre, Kalamassery.

(b) Under the auspices of Lal Bahadur Shastri Engineering Research and Consultancy Centre, a Postgraduate Diploma Course in Computer Applications, Part-time Course in Chemical Plant Operators at Kalamassery have also been started.

(c) *Short-term courses and Training Programme.*—Short term courses in Low Cost Housing, TV repairing and maintenance were conducted at College of Engineering, Trivandrum. A Summer School was conducted under the auspices of Indian Society for Technical Education in Cost Reduction in Rural Housing at the College of Engineering, Trivandrum during 12th to 23rd May, 1987.

(d) A certificate course on Cosmetology and Beauty Parlour Management was conducted at Kottayam and Kalamassery with an intake of 25.

10. *Kerala State Science and Technology Museum.*—During the year many new items of exhibits have been added to the galleries and the garden, the most important among them being a working scale model of a “Water Train” and a T.V. Dynamic Demonstration exhibit showing the complete aspects on the working of a T.V. in the Electronics gallery. During the year there has been 40 per cent increase in the visitor strength to the Museum compared to last year. Reference books costing about Rs. 10,000 on Science and Technology have been purchased for the Technical Library of the Museum.

Preliminary steps for setting up the Priyadarsini Planetarium of the Museum have been taken. The Planetarium is expected to be commissioned by May, 1988 and it is expected that by 1990 the Kerala State Science and Technology Museum will reach its full size and shape to serve as one of the major Institutions of its kind in India.

11. *Lal Bahadur Shastri Engineering Research and Consultancy Centre.*—During the year 1986–87 Lal Bahadur Shastri Engineering Research and Consultancy Centre completed certain important R. & D. Assignments and consultancy projects and started new academic courses. Notable among the R. & D. works was the model study of Chombal harbour for the Harbour Engineering Department to determine an option layout which would provide adequate protection for fishing vessels from storm waves. A wave tank and wave generator were fabricated and several break water configurations were investigated for their tranquility conditions, entrance conducted sillation behaviour, scour condition and shore line changes. The best lay out was obtained from investigation. Among the consultancy assignments a comprehensive project was undertaken for NH-7 involving soil investigation, surveying, traffic analysis, pavement design etc.

The Regional Unit Building of the Centre at Kalamassery was inaugurated in June 1986. The headquarters building of the Centre at Trivandrum is fast progressing in construction. An advanced course for Engineers on Foundation Engineering was conducted in November, 1986.

12. *Polytechnic Teacher Award of Indian Society for Technical Education.*—Sri K. Vijayan, Head of Section in Civil Engineering, Government Polytechnic, Palghat has been selected for the 'Best Polytechnic Teacher Award' from Kerala for the year 1986, by the Indian Society for Technical Education at its Annual Convention held at Allahabad on 13th and 14th December, 1986.

13. *Institute of Human Resources Development for Electronics.*—The Institute of Human Resources Development for Electronics, has been established by the Government for taking up various activities in connection with the generation of highly skilled manpower required in the Electronics Sector. The Institute has been registered as an autonomous body under the Travancore-Cochin Literacy, Scientific and Charitable Societies Act on 28th January, 1987. The Institute has been identified as the nodal Centre for Electronics and Computer Hardware and Maintenance Programme.

14. *Examination Results.*—The department was able to conduct the various examinations and publish the result as scheduled. In the Technical High School Leaving Certificate Examination held in March, 1986, the Technical High School, Teekoy and Pæyyoli secured 100 per cent pass. The first three ranks in Technical High School Leaving Certificate Examination went to Technical High School, Badagara.

15. *Central Technical Library.*—A Central Technical Library with all the facilities is functioning in the College of Engineering, Trivandrum.

16. *Student amenities.*—Various programmes have been implemented for the betterment of student amenities. A new bus was purchased in the Engineering College, Trivandrum. The construction of new block of the Ladies' Hostel in the College of Engineering, Trivandrum is nearing completion. The hostel building for the Food Craft Institute, Kalamassery has been completed. In the Regional Engineering College, Calicut, the Postgraduate Block has been opened.

17. *Unified vacation period.*—Government by G.O. Rt. 1525/86/H.Edn. dated 26th August 1986 have issued orders unifying vacation period for all institutions under the Directorate of Technical Education including Polytechnics with effect from the academic year 1986-87. Accordingly, April and May are fixed as vacation period in the department.

18. *Apprenticeship training.*—Placement of graduates and diploma holders were done very effectively in Government Departments, Quasi Government Organizations, and Private Organizations in the State as apprentices under A.A. Act, 1973 and otherwise. Fresh

diploma holders were selected and sent to Foreman's Training Institute, Bangalore for two year training programme with a monthly stipend of Rs. 400.

19. *National Workshop at Sree Rama Polytechnic, Valappad.*—A National workshop on identification and application of Science and Technology components for rural development sponsored by the Department of Science and Technology, Government of India was conducted at Sree Rama Polytechnic, Valappad from 2nd to 7th October, 1986. Eminent scholars and administrators participated in the workshop and presented papers. Professor M.G.K. Menon, Member, Planning Commission inaugurated the workshop and presented the keynote address.

20. *Community Polytechnics.*—As a part of the activities, the N.S.S. Polytechnics, Pandalam have erected 150 smokeless chullahs in different Harijan settlements in Pathanamthittan District identified by I.R.D.A. The Carmel Polytechnic, Alleppey was also involved in installation of smokeless chullahs. Training in Commercial Practice and T.G.M.T. Centres were given to ladies. A total of 29 men are given training in Wiring, Plumbing, Welding and Machinist trades. A review committee of Government of India has gone into the working of the Community Polytechnics and given suggestions.

21. *Scheduled Caste/Scheduled Tribe and Weaker Sections of the Society.*—An expenditure of about Rs. 5.75 lakhs is anticipated under the Special Component Plan and Tribal Sub-Plan for giving various benefits to Scheduled Caste/Scheduled Tribe students. The scheme of free supply of books worth Rs. 25 and 2 sets of uniform cloths to the S.C./S.T. students of Technical High Schools costing Rs. 150 and 2 sets of uniform cloths to S.C./S.T. students of Polytechnics costing Rs. 150 and one pocket calculator to the S.C./S.T. students of Engineering Colleges, one typewriter/one sewing machine to the final year S.C./S.T. students of Commercial Practice and Costume Design and Dress Making respectively in the Women's Polytechnics etc. was implemented. Special coaching to the needy S.C./S.T. students in Engineering Colleges and Polytechnics were arranged. 10 T.G.M.T. Centres exclusively for the S.C./S.T. functioned during the year. The 18 months training programme in stuffed toy making was conducted in the three Women's Polytechnics. 60 students selected for this training were given a monthly stipend of Rs. 250 and they were given a Sewing machine each at the end of the course. The three Centres successfully completed the programme. About 1600 S.C./S.T. students will be benefited by the implementation of the programme.

22. The total outlay for the department (both Plan and Non-Plan) during 1986-87 was Rs. 1,282.18 lakhs during the year under report the total expenditure (tentative) came to Rs. 1,345.30 lakhs. In

addition to this there was a provision of Rs. 95 lakhs under Centrally Sponsored Scheme and the expenditure (tentative) came to Rs. 107 lakhs. The amount provided under the plan was for the various schemes of development activities of the department. The amount under the Non-plan was mainly for the salaries and other expenses for staff and related activities.

23. 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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**ADMINISTRATION REPORT OF
DEPARTMENT OF TECHNICAL EDUCATION 1986-87**

Minister for Education	:	Shri T. M. Jacob
Top Executives		
Secretary to Government	:	Shri M. S. K. Ramaswami
Director of Technical Education	:	Dr. P. J. George (till 30-6-1986) Dr. T. S. Ramanatha Iyer (from 1-7-1986)

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 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 7 Engineering Colleges, 24 Polytechnics, one Institute of Printing Technology, 47 Technical High Schools, 7 Food Craft Institutes including extension centres, 3 Fine Arts Institutions, 17 Government Commercial Institutions, 35 Government Industrial Schools/T.G.M.T. Centres, 12 Government Vocational Training Centres and 19 Pre-vocational training centres. Apart from these Institutions there are three autonomous Institutions the Lal Bahadur Sastri Engineering Research and Consultancy Centre, the Kerala State Science and Technology Museum and Institute for Human Resources Development Electronics. The Regional Engineering College, Calicut and the Food Craft Institute at Kalamassery and Extension Centres at Calicut, Trivandrum, Kottayam, Trichur, Cannanore and Kothamangalam are also autonomous Institutions with the Minister for Education as Chairman. An audio-visual and Reprographic Centre is also functioning under the Directorate.

There are also 366 Industrial Schools and 99 Engineering Institutions under the private sector which are recognised by the Department.

The Directorate commands a manpower strength of more than 6,000 by way of teaching staff, technical supporting staff, Administration staff and allied staff. The total intake of students exclusive of admission in Technical High Schools is over 6,700 and over 29,000 students are other-wise benefitted at certificate level including 2,500 students admitted to Technical High Schools. All Engineering Colleges and almost all Polytechnics except the newly started ones and Technical High School, Cheruvathoor are provided with hostel facilities and sufficient library facilities.

The original provision under the State plan was Rs. 290 lakhs inclusive of the share operated by the P.W.D. (Rs. 77 lakhs) the provision under non-plan was Rs. 992.18 lakhs.

The tentative expenditure during the period 1986-87 show 101.49 per cent in the original plan provisions. Under 100 per cent Centrally Sponsored Schemes there is a provision of Rs. 95 lakhs, and the tentative expenditure comes to Rs. 107 lakhs. The percentage of expenditure against the provision comes to 112.63. The tentative non-plan expenditure comes to Rs. 1,059.78 lakhs, during the year 1986-87.

The year under report had been comparatively rich in activities. 2,494 students were admitted to the Degree courses in various Engineering colleges and 3,544 students for Diploma courses in various Polytechnics. Also the needs of about 10,000 students studying for the K.G.C.E. Examination and about 16,500 students of K.G.T.E. courses studying in provisionally recognised institutions have been undertaken by the department.

The institutions provide instruction 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.

There was substantial growth at all levels of Technical Education during the previous years. Hence the policy of the department was to give more attention in consolidation and development of these Institutions. However one new Government Engineering College at Cannanore, three new Technical High Schools, one each at Purappuzha, Naduvil and Ullore and three Food Craft Institute Extension Centre at Cannanore and Trichur were started during the year. There was substantial growth in the quality of education and maintenance of discipline in the institutions.

Under the special component plan, free supply of Text Books and Teaching aids were continued. Facilities were given for special coaching scheme for Scheduled Caste/Scheduled Tribe students in all Engineering Colleges and Polytechnics. Specialised training in toy making was arranged for Harijan Girls at Trivandrum, Calicut and Trichur.

There was an all-round improvement of discipline, efficiency and activities in all institutions under the department during the year 1986-87. The Engineering Diploma Examination result showed an increase from 70 per cent to 78 per cent in May 1986.

1. ORGANISATION STRUCTURE

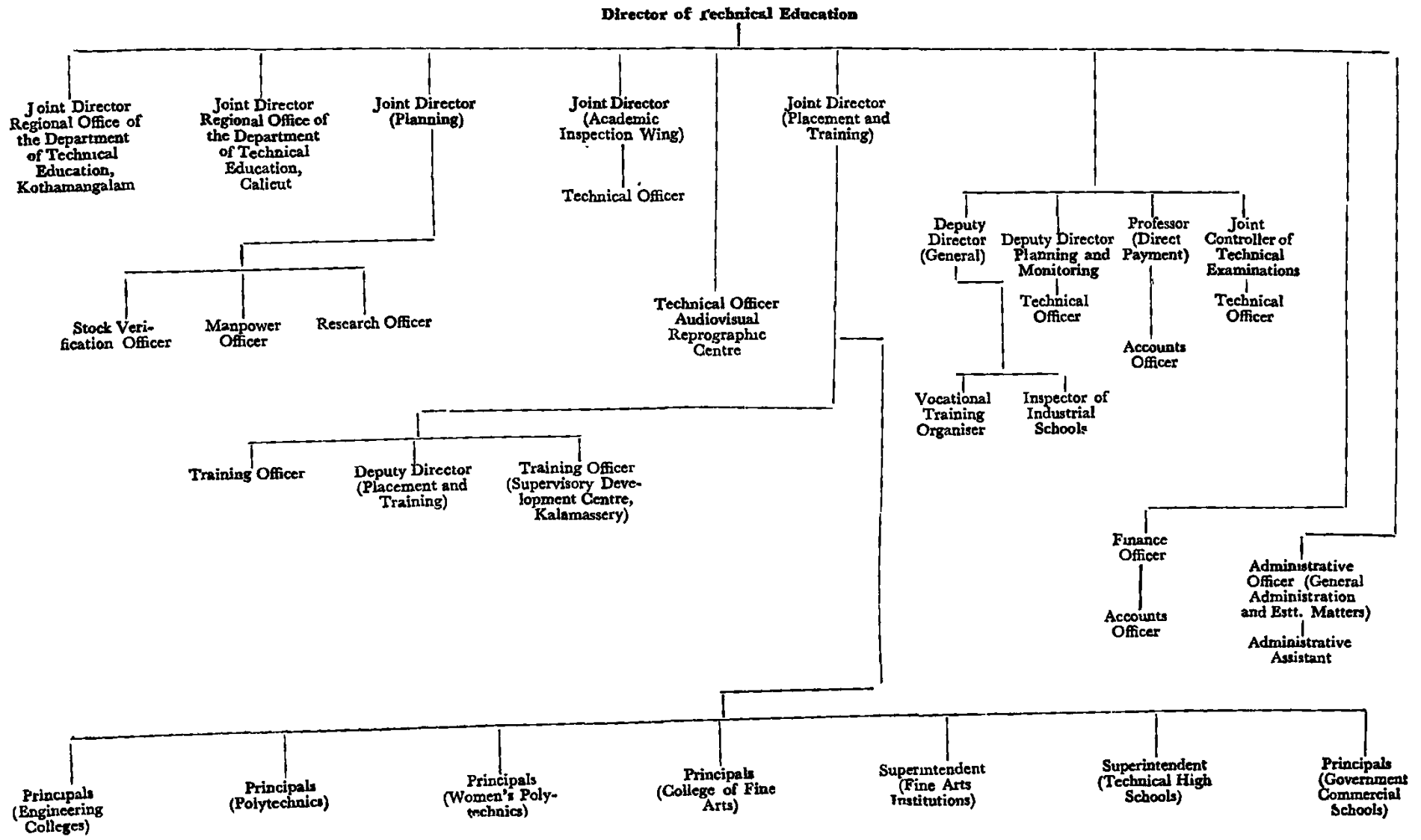
The organisation of the Department of Technical Education has its history traceable to 1957. Till then the Technical Institutions were controlled by the University and the Department of Industries and Commerce.

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 top of the Hierarchy the Hon. Minister for Education. The communication and decision making channels pass through the Secretary to Government to the Director of Technical Education.

The organisation structure is shown in figure 1. The Directory of personnel and the Appendix these follow indicate the rule of the controlling authorities attached to this Department.

FIG. 1
ORGANISATION OF THE DEPARTMENT OF TECHNICAL EDUCATION



2. THE DEPARTMENT IN 1986-87

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 major organization in the field of professional education and training. Seven Engineering Colleges, 25 Polytechnics, 47 Technical High Schools and 94 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 1 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 gives the directory of personnel during the year.

A list of heads of Institutions is given in Appendix 4.

2.3.2 *Staff position.*—There are more than 6,000 people working under the Directorate belong to various categories and various institutions.

TABLE I

<i>Sl. No.</i>	<i>Name</i>	<i>Office held</i>
1.	Dr. P. J. George	Director till 30-6-1986.
2.	Dr. T. S. Ramanatha Iyer	Director from 1-7-1986.
3.	Sri Babu Raja Praseedom	Professor in charge of Joint Director (Academic Inspection wing) till 17-6-1986.
4.	Dr. M. S. Abdul Kadir	Joint Director (Academic Inspection wing) from 18-6-1986.
5.	Sri C. N. Rajan	Joint Director (Planning) till 30-6-1986 and from 13-2-1987.
6.	Dr. P. V. John	Joint Director (Planning) from 23-8-1986 to 12-2-1987.
7.	Dr. K. Ramachandran	Joint Director (Placement and Training).
8.	Sri K. P. Hamza	Deputy Controller of Technical Examination till 31-8-1986. Joint Controller of Technical Examination from 1-9-1986.
9.	Dr. S. Narayanan	Deputy Director (Direct payment) till 28-9-1986. Professor (Direct Payment) from 29-9-1986.
10.	Sri B. S. Warriar	Deputy Director (General).
11.	Sri N. Ganapathy Iyer	Deputy Director (Monitoring).
12.	Sri M. K. Kumaran	Training Officer till 23-11-1986. Deputy Director (Placement and Training) till 24-11-1986.
13.	Sri G. Panduranga Das	Administrative Officer.
14.	Sri P. Joseph	Finance Officer.
15.	Sri N. E. Skariah	Administrative Assistant.
16.	Sri V. P. Vivekanandan	Accounts Officer (Direct payment).

TABLE I—(cont.)

<i>Sl. No.</i>	<i>Name</i>	<i>Office held</i>
17.	Sri P. Vidhyadharan	Accounts Officer (General).
18.	Sri P. Bhaskaran Nair	Public Relations Officer till 7-6-1986.
19.	Sri K. Pookunju	Public Relations Officer from 6-8-1986 to 30-1-1987.
20.	Sri S. Balachandran	Training Officer.
21.	Sri P. M. Joseph	Technical Officer.
22.	Sri C. Radhakrishna Pillai	Technical Officer till 30-9-1986.
23.	Sri N. Parameswaran	Technical Officer from 9-9-1986.
24.	Sri P. K. George	Research Officer.
25.	Sri N. Appukuttan Pillai	Man Power Officer from 26-5-1986 to 24-10-1986.
26.	Smt. P. D. Mariamma	Man Power Officer from 29-10-1986.
27.	Sri A. Abdul Vaheed	Stock Verification Officer.

REGIONAL OFFICES:

1. Sri P. S. Aravindakshan Joint Director (Regional Office, Calicut).
2. Sri D. Balakrishnan Joint Director (Regional Office, Kothamangalam)

AUTONOMOUS BODIES:

1. Sri K. Ramachandran Nair Director, Kerala State Science and Technology Museum.
2. Dr. K. P. Parameswaran Pillai Additional Director, Lal Bahadur Sastri Engineering Research and Consultancy Centre.
3. Sri M. Parameswaran Nair Special Officer, Institute for Man Power Development Electronics from 1-7-1986.

TABLE II

**Number of Institutions under the Department of
Technical Education**

Sl. No.	Category	Management			Total
		Government	Private	Quasi Government	
1.	Engineering Colleges ..	3	3	1	7
2.	Polytechnics ..	14	6	..	20
3.	Women's Polytechnics..	4	..	..	4
4.	Institute of Printing Technology ..	1	..	..	1
5.	Food Craft Institute and Extension Centre ..	..	..	7	7
6.	College of Fine Arts ..	1	..	..	1
7.	Institute of Fine Arts ..	2	..	..	2
8.	Commercial Institu- tions ..	17	..	..	17
9.	Technical High Schools ..	47	..	..	47
10.	Pre-vocational Train- ing Centre ..	19	..	..	19
11.	Government Indus- trial Schools ..	2	..	..	2
12.	Vocational Training Centre ..	5	..	..	5
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.	Supervisory Develop- ment Centre ..	1	..	..	1
18.	Others ..	..	..	3	3*
	Total ..	156	9	12	177

* (Autonomous institutions).

2.3.3 *Institutions*.—Altogether there are 177 institutions under the Directorate of Technical Education, of these 156 are purely Government Institutions, 9 Private Institutions and 8 Quasi-Government Institutions. The Kerala State Science and Technology Museum, Lal Bahadur Shastri Engineering Research and Consultancy Centre and Institute of M.R. Man Power Development Electronics are also under this Department. The Technical Teachers Training Institute Extension Centre is also functioning for the Institutions under this Department.

Appendix 6 gives the direct-wise distribution of these Institutions. In addition to these Institutions, there are 366 Industrial Schools and 99 Engineering Institutions which are purely private.

2.3.4 *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-7.

TABLE III

<i>Category</i>	<i>Intake</i>
Engineering Colleges (Under-graduate Courses including R.E.C., Calicut)	2494
Postgraduate Courses	126
Part-time degree courses	200
College of Fine Arts (Degree course)	35
Polytechnics	
Post Diploma Courses	95
Diploma Courses	3544
P.T. Diploma courses	243
Certificate course in Textile Technology	60
Technical High Schools	
T.H.S.L.C. Course	2500
Plus two level vocational Course in Technical High Schools	760
Fine Arts Institute Courses	60
Food Craft Institute courses	180
Commercial Institute Diploma Courses	760
Tailoring and Garment making Training courses	740
Other Craft Courses	130

2.3.5 *Scholarships and Stipends*.—A large number of students drawn from various categories of Institutions have been awarded scholarship and stipends during the year.

2.3.6 *Hostel Facilities.*—Hostel facilities are available except in new Institutions. A brief account of the hostel facilities is given in Appendix 8.

2.3.7 *Library Facilities.*—All the Institutes under the Directorate functioned satisfactorily in number of books, acquisition and utilisation.

2.3.8 *Financial.*—The original provision under the State Plan for the Department during the year 1986-87 was Rs. 290 Lakhs of which Rs. 77 Lakhs were for works. This fund under works was operated by the P.W.D.

The total expenditure (tentative) under the State Plan till the end of March, 1987 was Rs. 294.52. The percentage of expenditure out of the original provision of Rs. 290 lakhs was 101.49.

Under the Centrally Sponsored Scheme the total provision was Rs. 95 lakhs and the expenditure (tentative) come to Rs. 107 lakhs (112.63 per cent).

The total expenditure (tentative) under the Non-Plan category is Rs. 1,059.78 lakhs against a provision of Rs. 992.18 lakhs.

Detailed review and statements are given under the head "Financial Review".

2.4 *Activities.*—The year 1986-87 was a very active period in the field of Technical Education in Kerala. These activities were for the development and dissemination of Technical Education in the State. A few of them are mentioned below:—

2.4.1 *Routine Academic Activities*

1. *Engineering College.*—(i) *Government.*—There are three Government Engineering Colleges, one each at Trivandrum, Trichur and Cannanore. The College at Cannanore was started in this year. They offered courses at under-graduate level in basic engineering disciplines like Civil, Electrical and Electronics and Mechanical Engineering. At Trivandrum, additionally Architecture, Industrial Engineering, Electronics and Communication, Applied Electronics and Instrumentation Engineering and Computer Science were offered at degree level. At Trichur, Chemical, Production-cum-Plant Engineering, Electronics and Communication and Computer Science were also offered. The total intake at Trivandrum stood at 500, Trichur at 410 and Cannanore at 160.

Both the Institutions at Trivandrum and Trichur offered post-graduate programme in 16 different specialisations.

(ii) *Private*.—There are three private engineering colleges in Kerala. The T.K.M. College of Engineering, Quilon offered courses in Civil, Mechanical, Electrical and Electronics and Communications, Production Engineering, Computer Science, Architecture and Chemical Engineering with a total strength of 430. The total strength of M.A. College of Engineering, Kothamangalam stood at 310 offering courses in Basic Engineering and Electronics and Communication Engineering. N.S.S. College of Engineering, Palghat with a total intake of 330 in Basic Engineering Subjects and Instrumentation and Control Engineering and Electronics.

(iii) *Quasi-Government*.—The Regional Engineering College, Calicut has also offered degree courses in all the conventional branches and also Electronics and Communication, Computer Science, Architectural Engineering and Production and Management. The annual intake comes to 350 for degree courses.

2. *Polytechnics*.—(i) 14 Government Polytechnics, 6 Private Polytechnics, 4 Womens' 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, Computer Engineering and Commercial Practice.

(ii) Diploma Courses in Costume Design and Dress-making, Commercial Practice and Electronics are the main courses in Womens' Polytechnics. The newly started Women's Polytechnic in Ernakulam District has also introduced diploma course in Architectural Draughtsmanship.

(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 Swamy Nithyananda Polytechnic where courses in Civil, Mechanical and Automobile Engineering were offered. Among the private polytechnics the Seethi Sahib Memorial Polytechnic conducts diploma courses in Electronics and Automobile Engineering also.

Altogether these diploma level institutions meet the demands from over 3,544 students.

3. *Technical High Schools*.—The institutions conducted tests for admission to the 47 technical high schools in the State and admitted over 2,500 students, observing rules regarding reservations.

4. *Other Institutions.*—(i) The department has recognised engineering institutions to impart K.G.C.E. Courses to feed about 10,000 students. The number of recognised institutions of this category is 99. 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 366 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 16,500 students are studying in these Industrial schools.

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 and the last being the College of Fine Arts. The College of Fine Arts provides a degree of B.F.A. 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 and Electronics Engineering, Chemical at Trichur and Electronics and Communications at Trivandrum are also conducted. The total intakes for these courses is 200. These courses are intended for diploma holders and the part-time programme provides for avenues of career development through continuing education. A part-time M.B.A. Course was started at College of Engineering, Trivandrum with an intake of 30.

2. College of Engineering, Trivandrum continued the part-time post-graduate course of 3 years duration for teaching faculty.

3. Four year part-time diploma courses were run in Civil, Mechanical and Electrical in Polytechnics at Trivandrum (Central Polytechnic), Kalamassery (Government Polytechnic), Trichur (M.T.I.) and Calicut (Kerala Government Polytechnic), a part-time diploma Course in textile technology is run at Central Polytechnic, Trivandrum. The total intake capacity for these part-time diploma courses is 243.

2.4.3 *Postgraduate 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. The Regional Engineering College, Calicut is also conducting post-graduate course in Civil, Mechanical, Electrical and Electronics. Total strength—126. A master of computer application course was also started at College of Engineering, Trivandrum and T.K.M. College of Engineering, Quilon with intake of 30 each.

2. Post diploma courses were offered in the Central Polytechnic, Trivandrum (Industrial Engineering) Television Engineering and Computer Application, Government Polytechnic, Kalamassery (Air Conditioning and Refrigeration) and in M.T.I., Trichur (Foundry Technology). The Supervisory Development Centre offers Industry Safety Engineering also. The total annual intake for all the post-diploma courses is 95.

2.4.4 *Sports and games*

1. The 28th Inter Polytechnic Athletic Meet was held at Municipal Stadium, Trichur on 5th and 6th of January 1987 and all Polytechnics actively participated in the meet. Overall championship was awarded to Women's Polytechnic, Trichur.

2. All the Engineering Colleges in the State actively participated in the annual sports and games events.

3. The 4th All Kerala Technical High School Athletic Meet was held at Municipal Stadium, Trichur on 3rd and 4th January 1987. There was active participation from all Technical High Schools. Technical High School, Koratty was declared as champions for senior boys, junior boys and girls.

4. The Inter Technical School Youth Festival was held at Technical High School, Shertallai.

2.4.5 *Hostel activities*.—All the institutions at collegiate level and except the newly started Polytechnics and Engineering Colleges 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 8.

2.4.6 *Jubilee celebrations*.—The silver jubilee celebrations of Government Polytechnic, Perinthalmanna were conducted during the year. A nine day long science and technological exhibition attracting thousands of people were also organised in this connection.

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., All India Council for Technical Education and Industries of the region.

Instruction is offered at undergraduate and post-graduate levels. At degree level the intake capacity is 350 and at post-graduate level 30. The Institute has started new degree courses in Architectural Engineering and Computer Science last year.

2.5 Achievements.—During the previous years of the plan period a number of new institutions and courses were started. Therefore, attention had to be paid more on the consolidation and development of these institutions during the year.

In spite of the financial limitation of the Government, it was possible to obtain sanction from Government for 3 Government Engineering Colleges, 2 Government Polytechnics and one Womens' Polytechnics, 3 Food Craft Institutes Extension Centres in the State. Of the above one Government Engineering College has started functioning at Mangattuparambu, Cannanore and the Food Craft Institute Extension Centres during the year. Arrangements are being made to start the other institutions during the next academic year.

2. New Technical Institutions

Three technical high schools, one each at Ulloor in Trivandrum District, Purappuzha in Idukki District and Naduvil in Cannanore District, were started during the year.

New extension centres of food craft institute were started at Cannanore, Triohur and Kothamangalam during the year. Sanction has also been obtained for starting 2 Government Polytechnics one each in Kasargode and Alleppey Districts and one Womens' Polytechnic at Kottayam District. These institutions are proposed to be started in the next academic year.

3. New Courses

In the College of Engineering, Trivandrum and T.K.M. College of Engineering, Quilon the post-graduate course in Master of Computer Application was started with an intake of 30 each. A post diploma course in Industrial Safety Engineering was started with an intake of 25 at Supervisory Development Centre, Kalamassery.

Under the auspicious of Lal Bahadur Shastri Engineering Research and Consultancy Centre a postgraduate diploma course in Computer Applications was started. A part-time course in Chemical Plant Operators at Kalamassery has also been started.

4. Short-term Courses and Training Programmes

Short-term courses in low cost housing, T.V. repairing and maintenance at College of Engineering, Trivandrum were conducted. Also summer school, I.S.T.E. in cost reduction in rural housing at College of Engineering, Trivandrum during May 12-23.

5. Kerala State Science and Technology Museum

During the year many new items of exhibits have been added to the galleries and the garden. Among them the most important are a working scale model of a "Water Train" and a T.V. dynamic demonstration exhibit showing the complete aspects on the working of a television in the electronics gallery. Latest exhibits costing Rs. 1.45 lakhs on automobile and heat engines have been purchased.

During the year there is 40 per cent increase in the visitor strength to the Museum compared to last year. Reference books costing about Rs. 10,000 on science and technology have been purchased for the Technical Library of the Museum.

The most important scheme taken up during the year is the preliminary steps for setting up the Priyadarsini Planatorium of the Museum. The building costing more than Rs. 1 crore has been designed and the work is being awarded. The planatorium is expected to be commissioned by May 1988.

The design and planning works for other galleries, childrens' science park, technology garden, etc., have been initiated. It is expected that by 1990 the Kerala State Science and Technology Museum will reach its full size and shape to serve as one of the major institutions of its kind in India.

6. Lal Bahadur Shastri Engineering Research and Consultancy Centre

During the year 1986-87, Lal Bahadur Shastri Engineering Research and Consultancy Centre completed certain important R.&D. assignments and consultancy projects and started several new academic courses. Notable among the R.&D. works was the model study of Chombal Harbour for the Harbour Engineering Department to determine an option lay-out which would provide adequate protection for fishing vessels from storm waves. A wave tank and wave generator were fabricated and several break-water configurations were investigated for their tranquility conditions, entrance conducted sillation behaviour, scour condition and shore line changes. The best lay-out was obtained from investigation.

Among the consultancy assignments a comprehensive project was undertaken for N.H. 17 involving soil investigation, surveying, traffic

analysis, pavement design, etc. Post-graduate diploma courses in computer applications and diploma course in process plant operation were the new additions to the academic programme.

The Regional Unit building of the Centre at Kalamassery was inaugurated in June 1986. The headquarters building of the Centre at Trivandrum is fast progressing in construction. An advanced course for engineers on foundation engineering was conducted in November 1986.

7. M.C.A. Courses

Government of India have given sanction for the "Master of Computer Application" at the College of Engineering, Trivandrum and T.K.M. College of Engineering, Qulon. This course was started during the year and 30 persons each were given admission for this three year post-graduate course. Government of India will bear the entire expenses of the course except 10 per cent of the recurring expenditure.

8. Polytechnic Teacher Award of I.S.T.E.

Sri K. Vijayan, Head of Section in Civil Engineering, Government Polytechnic, Palghat has been selected for the "Best Polytechnic Teacher Award" from Kerala for the year 1986, by the I.S.T.E. at its 16 annual convention held at Alahabad on 13th and 14th December 1986.

9. Institute of Human Resources Development for Electronics

The Institute of Human Resources Development for Electronics, has been established by the Government for taking up various activities in connection with the generation of highly skilled manpower required in the electronics sector.

The Institute has been registered as an autonomous body under the Travancore-Cochin Literary, Scientific and Charitable Societies Act on 28th January 1987. The activities of the Institute were inaugurated by the Hon'ble Union Minister of State for Electronics Sri K. R. Narayanan on 12th February 1987 and launched the following training programmes:

(i) An industry-oriented post-graduate programme on computer applications jointly conducted with Keltron.

(ii) An eight months orientation programme on computer operation and maintenance for officers deputed by the Government of Kerala.

The Institute has been identified as the model centre for electronics and computer hardware and maintenance programmes.

10. Examination results

The Department was able to conduct the various examinations and publish the results as scheduled. The percentage of pass has also improved during the year. In the Diploma Examination in Engineering May 1986, 78 per cent of the candidates (appeared for the examination from various institutions) in the State have passed. The Kerala Government Certificate Examination in Civil, Mechanical, Electrical and Automobile Engineering. Certificate Examination in Food Craft and Diploma Examination in Shorthand and Typewriting were taken over by the Department of Technical Education from the Commissioner for Government Examinations.

In the T.H.S.L.C. Examination in March 1986, the Technical High Schools, Teekoy and Payyoli secured 100 per cent pass. The first 3 ranks in Technical High School Leaving Certificate Examination went to Technical High School, Badagara.

11. Central Technical Library

A Central Technical Library with all the facilities is functioning in the College of Engineering, Trivandrum.

12. Student amenities

Various programmes have been implemented for the betterment of student amenities. A new bus was purchased in the Engineering College, Trivandrum. The construction of new block of the ladies hostel in the College of Engineering, Trivandrum is nearing completion. The hostel building for the Food Craft Institute, Kalamassery has been completed. In the Regional Engineering College, Calicut the P.G. Block has been opened.

13. Unified vacation period

Government by G.O. (Rt.) No. 1525/86/H.Edn., dated 26th August 1986 have issued orders unifying vacation period for all institutions under the Director of Technical Education including polytechnics with effect from the academic year 1986-87. Accordingly April and May are fixed as vacation period in the Department.

14. Apprenticeship training

Placement of graduates and diploma holders were done very effectively in Government departments. Quasi Government organisations and private organisations in the State as apprentices under A.A. Act, 1973 and otherwise.

About 450 diploma holders and 300 graduates in Engineering got training through the Placement and Training Wing. Indirectly many other graduates like B. Pharm Degree holders were placed.

Twelve fresh diploma holders were selected and sent to Foreman's Training Institute, Bangalore for two year training programme with a monthly stipend of Rs. 400.

A certificate course in Cosmotology and Beauty Parlour Management was conducted at Kottayam and Kalamassery. 25 students each participated in the course and almost all of them have started their own beauty parlour at different parts of the State.

15. National workshop at Sree Rama Polytechnic, Valapad

A national workshop on identification and application of Science and Technology components for rural development, sponsored by the Department of Science and Technology Government of India was conducted at Sree Rama Polytechnic, Valapad from 2nd to 7th October 1986. Eminent scholars and administrators participated in the workshop and presented papers. Prof. M. G. K. Menon, Member, Planning Commission inaugurated the workshop and presented the Keynote address.

16. Community Polytechnics

As a part of the activities the N.S.S. Polytechnic, Pandalam have erected 150 smokeless chullahs in different Harijan Settlements in Pathanamthitta District identified by IRDA. The Carmel Polytechnic, Alleppey was also involved in installation of smokeless chullahs (500 have been erected) training to 21 and 23 ladies to commercial practice and T.G.M.T. Centres respectively are given. A total of 29 men are given training in wiring, plumbing, welding and machinist trades.

A review committee of Government of India has gone into the working of the Community Polytechnics and given suggestions.

2.6 Attention paid to S.C./S.T. and weaker sections of the society.— Some of the special interest taken by the Department for the betterment of S.C./S.Ts. have been outlined under the head "achievements".

An expenditure of about Rs. 5.75 lakhs is anticipated under the special component plan and Tribal sub-plan for giving various benefits to S.C./S.T. students. The scheme of free supply of books worth Rs. 25 and 2 sets of uniform cloths to the S.C./S.T. students of Technical High Schools Rs. 150 and 2 sets of uniform cloths to S.C./S.T. students of Polytechnics, Rs. 150 and one pocket calculator to the S.C./S.T. students of Engineering Colleges, one typewriter/one sewing machine to the final year S.C./S.T. students of commercial practice and costume design and dress making respectively in the Women's Polytechnics, etc., was implemented. Special coaching to the

needy S.C./S.T. students of Engineering Colleges and Polytechnics were arranged. 10 T.G.M.T. Centres for the S.C./S.Ts. were functioning during the year also.

The 18 months training programme in stuffed toy making was conducted in the three Women's Polytechnics. 60 students were selected for this training who were given a monthly stipend of Rs. 250 and a sewing machine each at the end of the course. The three centres successfully completed the programme. The next programme starts in these three women's polytechnics in March, 1987.

About 1600 S.C./S.T. students will be benefitted by the implementation of the above programmes.

2.7 Direct Financial Assistance from Government of India.—Government of India has given or approved direct financial assistance to some institutions in Kerala under the Directorate of Technical Education for different purposes. They are briefly mentioned below:—

Direct central assistance received/approved in 1986-87

<i>Name of Institution</i>	<i>Purpose</i>	<i>Amount approved Rs. in lakhs</i>	<i>Amount released Rs. in lakhs</i>
1. Regional Engineering College, Calicut	Expansion in intake ..	10.00	10.00
	Starting of computer ..	10.00	10.00
	Engineering Course, ..	10.00	10.00
	Modernisation of Mechanical Engi- neering Laboratory		
2. M. A. College of Engineering, Kothamangalam	Environmental Engi- neering ..	3.10	3.10
3. Kerala Government Poly- technic, Calicut	Modernisation of Lab. ..	7.00	.. Ministry of Human Resource Development
4. M.T.I., Trichur	do. ..	7.00	..
5. Engineering College, Trichur	Computer Science ..	6.00	.. Depart- ment of Electronics
	D.C.A. Course ..	3.00	.. do.
6. Women's Polytechnic, Trichur	Post Diploma Course ..	5.00	.. do.
	in D.C.A.		

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 terms used in the Department into Malayalam. The replies to letters received in Malayalam are given in Malayalam. In the College of Engineering, Trivandrum, the Department of Electrical Engineering has taken initiative to introduce Malayalam Characters. In certain cases office notes were put up in Malayalam.

3.2 *Directorate office.*—The office of the Director of Technical Education is housed in the ground floor of the Electricity Board building in the Power House Road.

3.3 *XXI Meeting of State Board of Technical Education.*—The 21st meeting of the State Board of Technical Education was held on 17th June 1986 at Trivandrum under the Chairmanship of Sri T. M. Jacob, Hon'ble Minister for Education. 38 members and 8 special invitees attended the meeting. A number of schemes were approved and important policy decisions in Technical Education were taken in the meeting.

3.4 *Industrial Liaison Board.*—The second meeting of the Industrial Liaison Board was held at Ernakulam on 6th June 1986. 25 persons including members and special invitees attended the meeting. A number of recommendations pertaining to Industry institutions relationship and placement of students were made in the meeting.

3.5 *Workshop on industry—Institution linkage.*—A one day workshop on industry institution linkage was held in T.K.M. College of Engineering, Quilon on 14th November. The workshop was sponsored by UNESCO, ISTE, Directorate and T.K.M. College of Engineering.

3.6 *Supervisory development programmes.*—Supervisory development programmes were conducted under the joint auspices of Directorate of Technical Education and the Southern Regional Apprenticeship Advisor at different centres as specified below during 1986-87.

	Nos.	Total No. of participants
Engineering Colleges ..	2	150
Polytechnics ..	9	660
Women's Polytechnic ..	1	34

3.7 *I.S.T.E. Semester school.*—A course in cost reduction in Rural Housing was conducted in May 12—23 1986 at College of Engineering, Trivandrum.

3.8 *Publications.*—Directorate of Technical Education continued the publication of the quarterly titled “The News Letter” highlighting major activities of the Department and new trends in Technical Education.

3.9 *Requirement of personal belonging to S.C./S.T.*—Due to shortage of S.C./S.T. students coming out of Engineering Colleges, the Department was not able to fill up the vacant posts of Lecturer in Engineering Colleges reserved for S.C./S.T. candidates. So steps were taken to recategories 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 S.C./S.T. candidates to ensure speedy filling up of the posts.

Attempts are also being made to attract more S.C./S.T. students to the Engineering Degree Courses.

3.10 *Grants (1986–87) Tentative.*—

<i>Category</i>	<i>Plan (lakhs)</i>	<i>Non-plan (lakhs)</i>
Private Engineering Colleges ..	0.30	152.00
Private Polytechnics ..	3.60	98.00
Private Industrial Schools ..	..	2.75
Regional Engineering College ..	4.00	70.73
Food Craft Institutes ..	7.00	10.17

Scholarships.—

Scholarships and stipends paid during 1986–87 to students from Kerala Studying outside the State.. 0.11

3.11 *Manpower 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 postgraduate level and Ph.D. level. During the year under report 23 candidates have been deputed for M.Sc./M.Tech. and 3 candidates for Ph.D.

2. Similar programme is implemented in Polytechnics and in the year 27 candidates were deputed to T.T.T.I.

3. A number of faculty members from Engineering Colleges, Polytechnics and Technical High 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. About 48 persons were sent for such courses.

A study on the employment pattern of diploma holders in textile technology has been taken up during the year.

4. FINANCIAL REVIEW

The financial resources have been already outlined earlier. The total outlay (both Plan and Non-plan) during 1986-87 was Rs. 1,282.18 lakhs. During the year under report the total expenditure (tentative) came to Rs. 1,345.30 lakhs. In addition to this there was a provision of Rs. 95 lakhs under centrally sponsored schemes and the expenditure (tentative) came to Rs. 107 lakhs. The provision and expenditure pertaining to 1986-87 in comparison with 1985-86 are 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 1986-87 and 1985-86

Serial number	Head of account and name of scheme	Provision for 1986-87 (Rs. in lakhs)	Expenditure for 1986-87 (Tentative) (Rs. in lakhs)	Provision for 1985-86 (Final grant) (Rs. in lakhs)	Expenditure for 1985-86 (Rs. in lakhs)
(1)	(2)	(3)	(4)	(5)	(6)
1.	Construction of building in the Directorate ..	2.00	..	..	..
2.	Technical High Schools—				
	277F(b)1 ..	2.50	3.25	2.50	2.59
	277F(b)3 ..	1.00	0.65	1.60	1.61
	277F(b)4 ..	18.50	28.60	44.99	67.99
	277F(b)5 ..	..	..	1.00	4.59
	477 (d)1 ..	40.00	40.00	20.00	24.10
3.	Government Polytechnics—				
	277F(c)1 ..	3.00	2.98	6.10	6.35
	277F(c)2 ..	1.50	1.45	2.65	2.57
	277F(c)4 ..	25.50	21.28	12.26	14.24
	477 (d)1 ..	22.00	22.00	25.00	37.63
4.	Assistance to Private Polytechnics—				
	277F(e)3 ..	6.00	3.60	2.50	2.46
5.	Government Engineering Colleges—				
	277F(d) 2 ..	3.50	5.06	4.50	4.57
	277F(d) 4 ..	3.00	6.21	6.08	5.96

	277 (d) 6	..	4.00	9.16	10.00	9.83
	277 (d) 7	..	0.50	0.19	1.50	1.55
	277 (d) 8	..	4.00	7.25	8.82	8.37
	277 (d)13	..	..	..	1.05	0.92
	277 (c)19	..	..	..	0.10	..
	477 (d) 1	..	5.00	5.00	35.00	25.43
6.	Assistance to Regional Engineering College, Calicut—					
	277F(e)2	..	4.00	4.00	4.00	4.00
7.	Starting of new Engineering College—					
	277F(d)1	..	40.00	26.00	..	..
8.	Assistance to Private Engineering Colleges—					
	277F(e)1	..	6.00	0.30	0.25	..
9.	Food Craft Institute, Kalamassery and Extension Centres—					
	277F(e)4	..	7.00	7.00	10.00	10.00
10.	Extension Centre of T.T.T.I.—					
	277F(h)6	..	1.00	1.00	0.20	0.54
	477 (d)1	..	1.00	1.00	0.50	..
11.	Science and Technology, Museum—					
	277F(i)5	..	31.00	31.00	40.00	40.00
12.	College of Fine Arts and Fine Arts Institution—					
	278(a)7	..	7.00	3.50	6.00	6.10
	477(b)1	..	1.00	1.00	1.00	..
13.	Centres of Diploma in Commercial Practice—					
	277(c)3	..	2.00	5.38	3.80	8.01

Serial number	Head of account and name of scheme	Provision for	Expenditure for	Provision for	Expenditure for
		1986-87	1986-87 (Tentative)	1985-86 (Final grant)	1985-86
(1)	(2)	(Rs. in lakhs) (3)	(Rs. in lakhs) (4)	(Rs. in lakhs) (5)	(Rs. in lakhs) (6)
14.	477(d)1 Tailoring and garment making centres—	1.00	1.00	2.00	..
	277F(h)9	1.00	0.30	..	..
15.	Apprenticeship training—				
	277F(h)5	3.00	7.25	5.72	7.06
	477 (d)1	2.00	2.00	..	..
16.	Matching grant for central schemes (Statistics)—				
	1. Merit promotion for teachers in R.E.C.—				
	277F(i)23	..	..	1.00	..
	2. Diploma course in computer application in Central Polytechnic, Trivandrum—				
	277F(i)25	..	4.00	1.00	0.91
17.	Construction of staff quarters—				
	477(d)1	..	3.00	3.00	0.06
18.	Faculty development—				
	277F(h)1	..	8.00	17.21	14.13
	277F(h)2	..	..	..	..

19. Special component plan—					
277F(m)10	..	0.90	0.50	0.50	0.05
20. Tribal sub plan—					
277F(i)10	..	3.00	3.21	0.45	2.04
277F(i)11	..	0.10	0.04	0.05	0.05
277F(i)15	..	2.00	2.00	3.00	3.06
21. Development of Human Resources					
Electronics—					
277F(i)27	..				
277F(i)13	..	20.00	20.00	1.76	4.42
Total	..	<u>290.00</u>	<u>294.52</u>	<u>287.09</u>	<u>321.19</u>

CENTRALLY SPONSORED SCHEMES 100 PER CENT ASSISTANCE

1. Postgraduate Courses in Engineering					
College, Trivandrum—					
277F(d)3	..	45.00	50.00	41.00	41.96
2. Postgraduate Courses in Engineering					
College, Trichur—					
277F(d)5	..	20.00	27.00	13.00	14.88
3. Direct Central Assistances for Development of Government Engineering					
College and Polytechnics—					
277F(d)15	..	30.00	30.00	20.00	23.21
Total	..	<u>95.00</u>	<u>107.00</u>	<u>74.00</u>	<u>80.05</u>

**4.2 Scheme-wise statement of non-plan provision and expenditure
during the years 1986-87 and 1985-86**

Sl. No.	Head of account and name of scheme	(Rs. in lakhs)			
		Provision for 1986-87	Expenditure for 1986-87 (Tentative)	Provision for 1985-86 (Final grant)	Expenditure for 1985-86
(1)	(2)	(3)	(4)	(5)	(6)
1.	277 F (a) 1 Direction and Administration	.. 34.17	38.67	25.45	34.91
2.	277 F (a) 2 Statistics and Placement	.. 1.69	1.65	1.17	1.54
3.	277 F (a) 3 Examination Wing	.. 12.45	15.75	11.00	13.71
4.	277 F (b) 1 Technical High Schools	.. 150.99	182.25	127.61	174.73
5.	277 F (b) 2 Industrial Education	.. 12.73	11.30	11.60	10.96
6.	277 F (b) 3 Pre-vocational Training Centres	.. 17.57	19.10	26.40	21.74
7.	277 F (c) 1 Government Poly- technics	.. 208.14	210.00	178.90	186.16
8.	277 F (c) 2 Women's Poly- technics	.. 20.94	20.25	22.19	20.15
9.	277 F (c) 3 Government Commercial Institutes	.. 9.97	17.35	13.39	11.52
10.	277 F (c) 4 New Polytechnics	.. ..	..	45.45	41.43

11.	277 F (d) 1 Government Engineering Colleges	..	148·85	154·25	131·67	152·72
12.	277 F (e) 1 Private Engineering Colleges	..	159·75	152·00	87·80	147·39
13.	227 F (e) 2 Regional Engineering College	..	70·73	70·73	63·23	63·23
14.	277 F (e) 3 Private Polytechnic	..	87·28	98·00	75·90	101·05
15.	277 F (e) 4 Food Craft Institutes	..	10·17	10·17	11·28	11·28
16.	277 F (e) 5 Industrial Schools	..	3·50	2·75	2·50	2·60
17.	277 F (f) Scholarships	..	0·50	0·11	0·50	0·44
18.	277 F (h) 9 T.G.M.T. Centres	..	4·02	3·45	3·54	2·52
19.	277 F (h) 10 T.G.M.T Centres —Special Component Plan	..	2·00	2·55	2·00	2·49
20.	277 F (i) 8 Diversification of courses	..	18·73	30·60	28·11	23·26
21.	277 F (i) 13 Matching Grant	..	1·50	1·50	..	..
22.	278 (a) 2 Institutes of Fine Arts	..	9·40	8·10	7·58	7·68
23.	278 (a) 7 College of Fine Arts	..	7·10	9·25	6·00	8·03
	Total	..	<u>992·18</u>	<u>1,059·78</u>	<u>883·27</u>	<u>1,039·54</u>

5. LIST OF APPENDICES

1. Members of the State Board of Technical Education.
2. Members of the Board of studies in Engineering and Technology.
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5. List of Technical Institutions in Kerala
6. *District-wise Distribution of Technical Institutions.*
7. Intake capacity and courses offered.
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APPENDIX I

Members of State Board of Technical Education

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

Nominees of Government of India

20. Deputy Educational Advisor (T) Ministry of Education
S.R.O., Madras.
21. Director Board of Apprenticeship Training, Ministry of
Education, S.R.O., Madras.
22. Principal, Technical Teachers Training Institute, 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. Sri George Joseph, Mundakkal M. P. (Moovattupuzha)
30. Sri V. V. Joseph, M.L.A., Moovattupuzha

Recognised Associations.—

31. Chairman K. S. Polytechnic Students' Union.
32. President, Dip. Engineering Association, Kerala.

Engineering Industries.—

33. Representative, Association of Indian Engineering Industry.
34. Chairman and Managing Director, KELTRON, Trivandrum.
35. M.D., H.M.T., Kalamassery.
36. M.D., F.A.C.T., Udyogamandal.

Armed Services.—

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

Technical Institutions**Engineering 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, R.E.C., Calcut.

B. Polytechnics.—

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

C.F.T. Schools.—

43. Sri L. Mathew, Superintendent, J.T.S., Adoor.

Experts.—

44. Dr. C. Jayaraman, Dean of P.G. Studies, E.C., Trivandrum Civil
45. Dr. S. Ravikumar, Dean of P.G. Studies, Engineering College, Trivandrum Mechanical
46. Dr. K. A. Muraleedharan, Professor, College of Engineering, Trivandrum Electrical
47. Dr. M. Harisankar, Professor, E.C., Trivandrum Electronics
48. Dr. Govindan Aniyath Paral, Professor, Engineering College, Trichur Chemical
49. Sri Jipson Charles, Principal, Women's Polytechnic, Trivandrum Commerce
50. Sri V. K. Jawaharlal, Prncipal, I.P.T., Shoranur Printing
51. Sri V. Nirmalan Thampy, Joint General Manager, K.S.R.T.C., Trivandrum Automobile

52. Dr. Jose. Common facilities Centre, Industrial Estate, Changanacherry	Polymer Technology
53. Dr. M. S. Valiathan, Director, S.C.M. Centre, Trivandrum	Bio-engineering
54. Miss. Thankam Philip, Principal, Insti- tute of Hotel Management, Bombay	Food Craft
55. Sri C. L. Porinchukutty, Principal, College of Fine Arts, Trivandrum	Fine Arts
56. Head of Department of Textile Techno- logy, P.S.C. College of Engineering, Coimbatore	Textile Technology
57. D. K. Ramachandran, Professor of Placement and Training, D.T.E's Office	Placement and Training
58. Dr. K. Sathyanandan, Professor of Physics, University of Cochin	Science
59. Professor G. Nagappan Nair (Retd. Principal) Nalanchira, Trivandrum	Mathematics
60. Director of Technical Educat.on	Convener
61. Chairman	State Committee in Science and Technology and Environ- ment
62. Director	Kerala State Science and Technology Museum

APPENDIX 2

**Members of the Board of studies in Engineering
and Technology**

Chairman.—

Director of Technical Education

Members.—

1. Director of Public Instruction.
2. Chief Engineer (General) P.W.D., Trivandrum.
3. Chief Engineer (Electrical) K.S.E.B., Trivandrum.
4. Sri K. S. Sreenivasa Naik, Principal, M.T.I., Trichur.
5. Sri K. P. Pothen, Principal Central Polytechnic,
Trivandrum.
6. Dr. P. Sivasankara Pillai, Head of the Department of
Chemical Engineering, Engineering College, Trichur.
7. Sri N. Bhaskara Kurup, Principal, N.S.S. Polytechnic,
Pandalam.

8. Sri O. K. Sreedharan, Professor of Commerce, Government Arts College, Trivandrum.
9. Principal, Engineering College, Trivandrum.
10. Deputy Director (General) D.T.E's. Office, Trivandrum.
11. Professor-in-charge, Technical Teachers' Training Institute, Extension Centre, Kalamassery.
12. Joint Director (A.I.W.) D.T.E's. Office, Trivandrum.
13. Joint Director, D.T.E's. Office, Trivandrum (Planning).

APPENDIX 3

HIGHER EDUCATION (G) DEPARTMENT

**G.O. (Ms.) No. 209/84/H.Edn., dated, Trivandrum,
3rd August 1984.**

Abstract.—Education—Technical—Establishment of Linkage between Technical Institution and Industry—Constitution of Industrial Liaison Board—Orders Issued.

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

ORDER

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, Government of Kerala .. „

- | | | |
|---|----|--------|
| 4. Secretary to Government Higher Education Department, Government of Kerala, Trivandrum | .. | Member |
| 5. Secretary to Government, Industries Department, Government of Kerala, Trivandrum | .. | .. |
| 6. Director of Employment and Training, Trivandrum | .. | .. |
| 7. Chairman, State Committee on Science and Technology, Government of Kerala, Trivandrum | .. | .. |
| 8. Director, Vikram Sarabai Space Centre, Trivandrum | .. | .. |
| 9. Principal, College of Engineering, Trivandrum | .. | .. |
| 10. Managing Director, Premier Tyres Limited, Kalamasserry, Alwaye-603104 | .. | .. |
| 11. Managing Director, ALIND, Udara-siromony Road, Trivandrum | .. | .. |
| 12. Managing Director, Kerala News Print Mills, H.P.C. Unit, Velloor, Kottayam | .. | .. |
| 13. Managing Director, Western India Plywoods Limited, Baliapattam, Cannanore-670010 | .. | .. |
| 14. Chairman and Managing Director, K.S.I.K., St. Joseph's Press Buildings, Cotton Hill, Trivandrum | .. | .. |
| 15. Managing Director, Kerala Minerals and Metals Limited, Beach Road, Quilon-1 | .. | .. |
| 16. Managing Director, Steel Industries Kerala Limited, Oottukuzhi, Trivandrum | .. | .. |
| 17. Managing Director, Telk, Angamaly South, Ernakulam-683573 | .. | .. |
| 18. Chairman and Managing Director, Keltron, Keltron House, Vellayambalam | .. | .. |

19. Managing Director, Cochin Refineries Limited, P.B. No. 2, Ambalamughal -682302	..	Member
20. Chairman and Managing Director, FACT Ltd., Udyogamandal Pin-683501	..	„
21. General Manager, H.M.T. Colony Post, Kalamassery-683503	..	„
22. General Manager, Instrumentation Limited, Kanjikode West, Palghat-67823	..	„
23. Managing Director, Cochin Shipyard Limited, P.B. No. 1653, Cochin-682015	..	„
24. Director of Technical Education Government of Kerala, Trivandrum -695023.	..	Member Secretary

3. Scope of Board

(i) 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 field 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 “277 F (h) 6—Industrial Residence”.

(By order of the Governor)

M. S. K. RAMASWAMY,

Commissioner and Secretary to Government.

APPENDIX 4

List of Heads of Institutions

NAME OF INSTITUTIONS:

I. Engineering Colleges.—

- | | | |
|---|----|---|
| 1. College of Engineering,
Trivandrum | .. | Dr. T. S: Ramanatha Iyer
(upto 30th June 1986) |
| | .. | Dr. R. Jayaraman from 1st
July 1986 |
| 2. Government Engineering
College, Trichur | .. | Pro; P; C: George |
| 3. Government Engineering
College, Cannanore | .. | Dr: N: Sukesan Nair |

APPENDIX 4—(cont.)

- | | | | |
|---------------------------|---|----|-----------------------------|
| 4. | T.K.M. College of Engineering, Quilon | .. | Prof. P. O. J. Lebba |
| 5. | N.S.S. College of Engineering, Palghat | .. | Dr. V. Balakrishna Panicker |
| 6. | M. A. College of Engineering, Kothamangalam | .. | Prof. Aliyas Varghese |
| 7. | Regional Engineering College, Calicut | .. | Dr. S. Unnikrishna Pillai |
| II. Polytechnics.— | | | |
| 1. | Central Polytechnic, Trivandrum | .. | Sri K. P. Pothan |
| 2. | Government Polytechnic, Kottayam | .. | „ N. K. Chacko |
| 3. | Government Polytechnic, Kalamassery | .. | „ N. K. Madhusudhanan |
| 4. | Maharajas Technological Institute, Trichur | .. | „ K. S. Sreenivasa Naik |
| 5. | Sree Rama Polytechnic, Valapad | .. | „ M. Madhavan |
| 6. | Government Polytechnic, Perinthalmanna | .. | „ K. M. Govindankutty |
| 7. | Kerala Government Polytechnic, Calicut | .. | „ P. Alavikutty |
| 8. | Government Polytechnic, Cannanore | .. | „ V. K. Mahamood |
| 9. | Government Polytechnic, Muttom | .. | „ K. Chandran |
| 10. | Government Polytechnic, Palghat | .. | „ N. Ramachandra Pisharady |
| 11. | Government Polytechnic, Kothamangalam | .. | „ Cyriac J. Kandathil |
| 12. | Government Polytechnic, Meenangadi | .. | „ M. Jayaraj |
| 13. | Government Polytechnic, Palai | .. | „ K. K. Balakrishna Menon |
| 14. | Government Polytechnic, Vennikulam | . | „ E. Narayana Iyer |
| 15. | Institute of Printing Technology, Shoranur | .. | „ V. K. Jawaharlal |

APPENDIX 4—(cont.)

- | | | | |
|--------------------------------------|--|----|---------------------------------|
| 16. | Sree Narayana Poly-
technic, Kottiyam | .. | Sri N. G. Bahuleyan |
| 17. | N. S. S. Polytechnic,
Pandalam | .. | „ N. Balakrishna Kurup |
| 18. | Carmel Polytechnic,
Alleppey | .. | „ P. Balan |
| 19. | Thiagarajar Polytechnic,
Alagappanagar | .. | „ Françise C. Joseph |
| 20. | Seethi Sahib Memorial
Polytechnic, Tirur | .. | „ K. Abdulla |
| 21. | Swamy Nithyananda
Polytechnic,
Kanhagad | .. | „ V. V. Ramakrishnan
Nambiar |
|
 | | | |
| III. <i>Women's Polytechnics.</i> — | | | |
| 1. | Women's Polytechnic,
Trivandrum | .. | Sri Jepson Charles |
| 2. | Do. Trichur | .. | Smt. P. P. Kadeeja |
| 3. | Do. Calicut | .. | Sri M. Venkateswaran |
| 4. | Do. Ernakulam | .. | „ M. Narayanan |
|
 | | | |
| IV. <i>Fine Arts.</i> — | | | |
| 1. | College of Fine Arts,
Trivandrum | .. | Sri C. L. Porinchukutty |
| 2. | R. V. Institute of Fine
Arts, Mavelikara | .. | „ T. A. Sukumara Menon |
| 3. | Institute of Fine Arts,
Trichur | .. | „ V. S. Balakrishnan |
|
 | | | |
| V. | Supervisory Development
Centre, Kalamassery | .. | „ M. Rajendra Babu |
|
 | | | |
| VI. <i>Technical High Schools.</i> — | | | |
| 1. | Technical High School,
Nedumangad | .. | Sri V. Rvindrathatha Babu |
| 2. | Do. Attingal | .. | „ M. Madhusoodanakumar |
| 3. | Do. Adoor | .. | „ T. K. Vasavan |
| 4. | Do. Ezhukone | .. | „ K. Muhammed Haneefa |
| 5. | Do. Shertallai | .. | „ P. C. Antony |
| 6. | Do. Krishnapuram | .. | „ T. M. Joseph |
| 7. | Do. Pampady | .. | „ T. I. Thomas |
| 8. | Do. Palai | .. | „ V. J. Kuriakose |

APPENDIX 4—(cont.)

9.	Technical High School, Perumbavoor	..	Sri P. K. Varkey
10.	Do. Koratty	..	„ T. D. Varunni
11.	Do. Kodungallur	..	„ K. V. Raveendran
12.	Do. Trichur	..	„ C. Ramachandran
13.	Do. Kunnamkulam	..	„ K. V. Dharmarathnam
14.	Do. Chittur	..	„ K. Venugopalan
15.	Do. Shoranur	..	„ A. Ramachandran
16.	Do. Badagara	..	„ E. Rajan
17.	Do. Cannanore	..	„ A. Haridas
18.	Do. Calicut	..	„ A. P. Chakrapani
19.	Do. Mattannur	..	„ K. R. Kochunni
20.	Do. Cheruvathur	..	„ ..
21.	Do. Palghat	..	„ N. Ramachandran
22.	Do. Kuttippuram	..	„ K. P. Krishnan Unni Nair
23.	Do. Sulthan Battery	..	„ P. M. Muhammed Zainudeen (in-charge)
24.	Do. Adimali	..	„ J. Abdul Salam
25.	Do. Manantoddy	..	„ P. Vijayan
26.	Do. Vannapuram	..	„ E. V. Georgekutty
27.	Do. Kulathur	..	„ K. Lakshmanan
28.	Do. Naruvambram	..	„ P. P. Velayudhan Nambiar
29.	Do. Teekoy	..	„ R. Sidharaman Nair
30.	Do. Payyoli	..	„ C. P. Kunhikrishnan Nair
31.	Do. Mogralputhur	..	„ R. Gopinatha Pillai
32.	Do. Elanji	..	„ M. Sadasivan
33.	Do. Kulathupuzha	..	„ V. Surendran
34.	Do. Manjeri	..	„ K. Raman
35.	Do. Nannamukku	..	„ P. M. Rajan
36.	Do. Mulanthuruthy	..	„ P. R. Karthikeyan
37.	Do. Kavalam	..	„ K. G. Narayanan Asari
38.	Do. Haripad	..	„ C. K. Gopalakrishna Pillai
39.	Do. Thirurangadi	..	„ K. T. Kunhi Moideen
40.	Do. Ulloor	..	„ A. Abdul Karim
41.	Do. Purapuzha	..	„ P. N. Mathew
42.	Do. Naduvil	..	„ T. S. Thomas
43.	Do. Varapetty	..	„ P. V. Scariah
44.	Do. Kurichi	..	„ V. N. Raju
45.	Do. Kadaplamattom	..	„ C. J. Paul
46.	Do. Kanjirappally	..	„ K. K. Mohammed Yousef
47.	Do. Ayavana	..	„ N. V. Kumaran

APPENDIX 4—(cont.)

VII. *Government Commercial Institute.*—

1.	Government Commercial ..	Smt. B. Rama Devi
	Institute,	
	Trivandrum	
2.	Do. Punalur ..	Sri V. Levakumar
3.	Do. Pothanikkad ..	Smt. K. Girija Devi
4.	Do. Lalom ..	„ K. Thulasi
5.	Do. Alleppey ..	Sri R. Krishnankutty
6.	Do. Ettumannoor ..	„ V. A. Joseph
7.	Do. Kothamangalam ..	„ M. P. Mathew
8.	Do. Kanchiyar ..	„ Mohana Prasad
9.	Do. Ernakulam ..	„ Ramadathan Unni
10.	Do. Mala ..	„ T. A. Baby
11.	Do. Palghat ..	Smt. V. Indira
12.	Do. Manjeri ..	Sri K. Muhamed
		Abdurehman
13.	Do. Quilandy ..	„ K. P. Jyothiram
14.	Do. Thaliparamba ..	Smt. V. T. Aley
15.	Do. Meenangadi ..	Sri M. Sukumaran
16.	Do. Kallachi ..	„ T. K. Kelu Nair
17.	Do. Kannapuram ..	Smt. K. T. Suganthi

APPENDIX 5

List of Technical Institutions in Kerala

<i>Sl. No.</i> (1)	<i>Category</i> (2)	<i>Name of institution</i> (3)	<i>Location</i> (4)	<i>Management</i> (5)
I.	Engineering Colleges	College of Engineering, Trivandrum	1. Trivandrum	Government
		Engineering College, Trichur	2. Trichur	do.
		Engineering College, Cannanore	3. Cannanore	do.
		T.K.M. College of Engineering, Quilon	4. Quilon	Private
		M.A. College of Engineering	5. Kothamangalam	do.
		N.S.S. College of Engineering	6. Palghat	do.
		Regional Engineering College	7. Calicut	Quasi-Government
II.	Polytechnics	Government Polytechnic	1. Kottayam	Government
		Do.	2. Kalamassery	do.
		Do.	3. Perinthalmanna	do.
		Do.	4. Cannanore	do.
		Do.	5. Muttom	do.
		Do.	6. Palghat	do.
		Do.	7. Kalpetta	do.
		Do.	8. Kothamangalam	do.
		Do.	9. Palai	do.
		Do.	10. Vennikulam	do.
		Central Polytechnic	11. Trivandrum	do.
		Kerala Government Polytechnic	12. Calicut	do.
		Sree Rama Polytechnic	13. Valapad	do.
		Maharaja's Technological Institute	14. Trichur	do.
		S.N. Polytechnic	15. Kottiyam	Private
		N.S.S. Polytechnic	16. Pandalam	do.

	Carmel Polytechnic	17. Alleppey	do.
	Thaigarajar Polytechnic	18. Alagappanagar	do.
	S.S.M. Polytechnic	19. Tirur	do.
	Swami Nithyananda Polytechnic	20. Kanhangad	do.
III. Womens Polytechnics	Women's Polytechnic	1. Trivandrum	Government
	Do.	2. Trichur	do.
	Do.	3. Calicut	do.
	Do.	4. Ernakulam	do.
IV. Printing Technology Institute	Institute of Printing Technology	1. Shoranur	do.
V. Technical High Schools	Technical High School	1. Attingal	do.
	Do.	2. Nedumangad	do.
	Do.	3. Kulathoor	do.
	Do.	4. Ulloor	do.
	Do.	5. Adoor	do.
	Do.	6. Ezhukone	do.
	Do.	7. Kanjirappally	do.
	Do.	8. Pampady	do.
	Do.	9. Palai	do.
	Do.	10. Teekoy	do.
	Do.	11. Kurichi	do.
	Do.	12. Kadaplamattom	do.
	Do.	13. Kulathupuzha	do.
	Do.	14. Adimali	do.
	Do.	15. Vannappuram	do.
	Do.	16. Purapuzha	do.
	Do.	17. Krishnapuram	do.
	Do.	18. Kavalam	do.
	Do.	19. Haripad	do.

APPENDIX 5—(cont.)

<i>Sl. No.</i> (1)	<i>Category</i> (2)	<i>Name of institution</i> (3)	<i>Location</i> (4)	<i>Management</i> (5)
		Technical High School	20. Sherthalai	Government
		Do.	21. Ealnji	do.
		Do.	22. Mulanthuruthi	do.
		Do.	23. Ayavana	do.
		Do.	24. Varapetty	do.
		Do.	25. Perumbavoor	do.
		Do.	26. Koratty	do.
		Do.	27. Kodungalloor	do.
		Do.	28. Kunnamkulam	do.
		Do.	29. Trichur	do.
		Do.	30. Chittoor	do.
		Do.	31. Palghat	do.
		Do.	32. Shornur	do.
		Do.	33. Badagara	do.
		Do.	34. Calicut	do.
		Do.	35. Payyoli	do.
		Do.	36. Kuttipuram	do.
		Do.	37. Manjeri	do.
		Do.	38. Nannamukku	do.
		Do.	39. Thururangadi	do.
		Do.	40. Cannanore	do.
		Do.	41. Neruvambram	do.
		Do.	42. Naduvil	do.
		Do.	43. Mattannur	do.
		Do.	44. Manantoddy	do.
		Do.	45. Sulthan Battery	do.
		Do.	46. Cheruvathur	do.

	Do.	47. Mogral Puthur	do.
VI. Commercial Institutes	Government Commercial Institute	1. Trivandrum	do.
	Do.	2. Punalur	do.
	Do.	3. Alleppey	do.
	Do.	4. Ettumannur	do.
	Do.	5. Kanchiyar	do.
	Do.	6. Ernakulam	do.
	Do.	7. Kothamangalam	do.
	Do.	8. Mala	do.
	Do.	9. Manjeri	do.
	Do.	10. Quilandy	do.
	Do.	11. Meenangadi	do.
	Do.	12. Taliparamba	do.
	Do.	13. Palghat	do.
	Do.	14. Lalam	do.
VII. Fine Arts Institutions	College of Fine Arts	15. Pothanikkad	do.
	Institute of Fine Arts	16. Kallachi	do.
	Do.	17. Kannapuram	do.
VIII. Industrial/ T.G.M. Centre	Tailoring and 'Garment Making Training Centre	1. Trivandrum	do.
	Do.	2. Mavelikkara	do.
	Do.	3. Trichur	do.
	Do.	1. Pattom	do.
	Do.	2. Quilon	do.
	Do.	3. Tripunithura	do.
	Do.	4. Njarakkal	do.
	Do.	5. Kalpathy	do.
	Do.	6. Kondoty	do.
	Do.	7. Badagara	do.
Do.	8. Dharmadam	do.	
Do.	9. Payyannur	do.	

APPENDIX 5—(cont.)

<i>Sl. No.</i> (1)	<i>Category</i> (2)	<i>Name of institution</i> (3)	<i>Location</i> (4)	<i>Management</i> (5)
		Tailoring and Garment Making	10. Kumili	Government
		Training Centre	11. Thodupuzha	do.
		Do.	12. Edappally	do.
		Do.	13. Chowghat	do.
		Do.	14. Manacad	do.
		Do.	15. Ponnani	do.
		Do.	16. Vengara	do.
		Do.	17. Kuttichira	do.
		Do.	18. Sulthan Battery	do.
		Do.	19. Kasaragod	do.
		Do.	20. Trichur	do.
		Do.	21. Mannarghat (S.C./S.T.)	do.
		Do.	22. Chathannur (S.C./S.T.)	do.
		Do.	23. Manantoddy (S.C./S.T.)	do.
		Do.	24. Agali(S.C./S.T.)	do.
		Do.	25. Sholayar (S.C./S.T.)	do.
		Do.	26. Kallada (S.C./S.T.)	do.
		Do.	27. Vaithiri (S.C./S.T.)	do.
		Do.	28. Peermedu (S.C./S.T.)	do.

	Do.	29. Rajakkad (S.C./S.T.)	do.
	Do.	30. Melukkavu (S.C./S.T.)	do.
	Do.	31. Kollayam	do.
	Tailoring and Trade School	32. Haripad	do.
	Do.	33. Devikulam	do.
	Government Industrial School	34. Irinjalakuda	do.
	Do.	35. Vadakkancherry	do.
IX. Vocational Training	Tailoring Training Centres	1. Parassala	do.
	Do.	2. Pachallur	do.
	Do.	3. Karumkulam	do.
	Do.	4. Kanjiramkulam	do.
	Do.	5. Maranallur	do.
	Do.	6. Chirayinkil	do.
	Do.	7. Chengannur	do.
	Do.	8. Kandala	do.
	Weaving Training Centres	9. Aralummoodu	do.
	Composing and Printing Centre	10. Vattiyoor kavu	do.
	Book Binding Centre	11. Palkulangara	do.
	Do.	12. Kulathur	do.
	Rattan Training Centre	13. Paraniyam	do.
X. Pre-Voca- tional Train- ing Centre	Pre-Vocational Training Centres	1. Attingal	do.
	Do.	2. Cannanore	do.
	Do.	3. Kodungallur	do.
	Do.	4. Manjeri	do.
	Do.	5. Nedumangad	do.
	Do.	6. Mattannur	do.
	Do.	7. Kunnamkulam	do.
	Do.	8. Koratty	do.

APPENDIX 5—(cont.)

<i>Sl. No.</i> (1)	<i>Category</i> (2)	<i>Name of institution</i> (3)	<i>Location</i> (4)	<i>Management</i> (5)
		Pre-Vocational Training Centres	9. Pampady	Government
		Do.	10. Krishnapuram	do.
		Do.	11. Ezhukone	do.
		Do.	12. Chittur	do.
		Do.	13. Shoranur	do.
		Do.	14. Cheruvathur	do.
		Do.	15. Badagara	do.
		Do.	16. Perumbavoor	do.
		Do.	17. Sherthallai	do.
		Do.	18. Adoor	do.
		Do.	19. Palai	do.
XI.	Food Craft Institute	Food Craft Institute	1. Kalamassery	Quasi-Government
		Food Craft Extension Centre	2. Trivandrum	do.
		Do.	3. Kottayam	do.
		Do.	4. Trichur	do.
		Do.	5. Calicut	do.
		Do.	6. Kothamangalam	do.
		Do.	7. Cannanore	do.

APPENDIX 6
District-wise distribution of technical institutions

Category	Trivandrum	Quilon	Alleppey	Pathanamthitta	Kottayam	Idukki	Ernakulam	Trichur
1	2	3	4	5	6	7	8	9
Engineering Colleges ..	1	1	..	..	..	..	1	1
Polytechnics ..	1	1	1	2	2	1	2	3
Women's Polytechnics ..	1	..	..	..	..	..	1	1
Institute of Printing Technology ..	..	..	..	..	..	..	..	..
Food Craft Institute ..	1	..	..	..	1	..	2	1
College of Fine Arts ..	1	..	..	..	..	..	..	..
Institute of Fine Arts ..	..	..	1	..	..	..	..	1
Commercial Institutes ..	1	1	1	..	2	1	3	1
Technical High Schools ..	4	2	4	1	6	3	5	4
Pre-Vocational Training Centres ..	2	1	2	1	2	..	1	3
Vocational Training Centre ..	5	..	..	..	..	..	..	..
Tailoring Training Centre ..	6	..	1	..	..	..	..	..
Tailoring Trade School ..	..	..	1	..	..	1	..	..
Industrial Schools ..	..	..	..	..	..	..	..	2
Tailoring and Garment Making Training Centre ..	1	2	..	..	2	4	3	3
T.T.T. Extension Centre ..	..	..	..	..	..	..	1	..
Supervisory Development Centre ..	..	..	..	..	..	..	1	..
Total ..	24	8	11	4	15	10	20	20

APPENDIX 6—(cont.)

Category	Palghat	Malappuram	Calicut	Wynad	Cannanore	Kasaragod	Total	Of which New
	10	11	12	13	14	15	16	17
Engineering Colleges ..	1	..	1	..	1	..	7	1
Polytechnics ..	1	2	1	1	1	1	20	..
Women's Polytechnics ..	..	..	1	..	..	..	4	..
Institute of Printing Technology ..	1	..	..	..	..	..	1	..
Food Craft Institute ..	..	..	1	..	1	..	7	3
College of Fine Arts ..	..	..	..	..	..	..	1	..
Institute of Fine Arts ..	..	..	..	..	..	..	2	..
Commercial Institutes ..	1	1	2	1	2	..	17	..
Technical High Schools ..	3	4	3	2	4	2	47	3
Pre-Vocational Training Centres ..	2	1	1	..	2	1	19	..
Vocational Training Centre ..	..	..	..	..	..	..	5	..
Tailoring Training Centre ..	..	..	..	..	..	..	7	..
Tailoring Trade School ..	..	..	..	..	..	..	2	..
Industrial Schools ..	..	..	..	..	..	..	2	..
Tailoring and Garment Making Training Centre ..	3	5	2	3	2	1	31	..
T.T.T. Extension Centre ..	..	..	..	..	..	..	1	..
Supervisory Development Centre ..	..	..	..	..	..	..	1	..
Total ..	12	13	12	7	13	5	174	7

APPENDIX 7

Intake capacity and courses offered**1. ENGINEERING COLLEGES:**

<i>Course offered</i>	<i>Institute where offered</i>	<i>Intake</i>
(1)	(2)	(3)
A. Postgraduate Courses (Electives)		
1. Civil Engineering—		
1. Structural Engineering	College of Engineering, Trivandrum	6
	Regional Engineering College, Calicut	10
2. Hydraulics	College of Engineering, Trivandrum	4
3. Soil Mechanics	College of Engineering, Trivandrum	6
4. Public Health Engineering	College of Engineering, Trivandrum	4
5. Transportation and Traffic Engineering	College of Engineering, Trivandrum	4
2. Mechanical Engineering (Electives)—		
1. Heat Power Engineering	College of Engineering, Trivandrum	4
2. Machine Design	College of Engineering, Trivandrum	4
3. Production Engineering	College of Engineering, Trichur	6
4. Refrigeration and Air Conditioning	Regional Engineering College, Calicut	10
5. Propulsion Engineering	College of Engineering, Trivandrum	4
6. Industrial Refrigeration and Cryogenic Engi- neering	T.K.M. College of Engi- neering, Quilon	6
7. Industrial Engineering	Regional Engineering College, Calicut	8
3. Electrical Engineering (Electives)—		
1. Power System	College of Engineering, Trivandrum	6

APPENDIX 7—(cont.)

<i>Course offered</i> (1)	<i>Institute where offered</i> (2)	<i>Intake</i> (3)
2. Electrical Machine Design	College of Engineering, Trivandrum	4
3. Control System	College of Engineering, Trivandrum College of Engineering, Trichur	4 6
4. Navigation and Guidance Control	College of Engineering, Trivandrum	4
5. Instrumentation and Control System	Regional Engineering College, Calicut	10
4. <i>Electronics and Telecommunication (Electives)</i> —		
1. Microwave Engineering	College of Engineering, Trivandrum	6
2. Applied Electronics	College of Engineering, Trivandrum	4
5. <i>Chemical Engineering (Electives)</i> —		
1. Process control	College of Engineering, Trichur	6
Total		126

B. M.B.A. and M.C.A. P.G. Course

1. Master in Business Administration (MBA) Part-time Course	College of Engineering, Trivandrum	30
2. Master in Computer Application (MCA)	College of Engineering, Trivandrum T. K. M. College of Engineering, Quilon	30 30

Degree Courses—

1. Civil Engineering	All Seven Engineering Colleges	602
2. Mechanical Engineering	All Seven Engineering Colleges	582

APPENDIX 7—(cont.)

<i>Course offered</i> (1)	<i>Institute where offered</i> (2)	<i>Intake</i> (3)
3. Electrical and Electronics Engineering	All Seven Engineering Colleges	550
4. Computer Science	College of Engineering, Trivandrum	30
	Engineering College, Trichur	30
	T. K. M. Colleges of Engineering, Quilon	30
	Regional Engineering College, Calicut	30
5. Chemical Engineering	Engineering College, Trichur	50
	T.K.M. College of Engineering, Quilon	30
6. Electronics and Communication	All Seven Engineering Colleges	300
7. Architecture	College of Engineering, Trivandrum	30
	T.K.M. College of Engineering, Quilon	20
	Regional Engineering College, Calicut	30
8. Applied Electronics and Instrumentation Engineering	College of Engineering, Trivandrum	40
9. Production-cum-Plant Engineering	Engineering College, Trichur	30
10. Production Engineering	T. K. M. College of Engineering, Quilon	30
11. Production and Management	Regional Engineering College, Calicut	30
12. Industrial Engineering	College of Engineering, Trivandrum	20
13. Instrumentation and Control Engineering	N. S. S. College of Engineering, Palghat	30
	Total,	2494

APPENDIX 7—(cont.)

<i>Course offered</i> (1)	<i>Institute where offered</i> (2)	<i>Intake</i> (3)
I: Part-time Degree Courses—		
1. Civil Engineering	College of Engineering, Trivandrum	20
	Engineering College, Trichur	20
	T. K. M. College of Engineering, Quilon	15
2. Mechanical Engineering	College of Engineering, Trivandrum	20
	Engineering College, Trichur	20
	T. K. M. College of Engineering, Quilon	15
3. Electrical and Electro- -nics Engineering	College of Engineering, Trivandrum	20
	Engineering College, Trichur	20
	T. K. M. College of Engineering, Quilon	15
4. Electronics and Com- -unication Engine- -ering	College of Engineering, Trivandrum	20
5. Chemical Engineering	Engineering College, Trichur	15
Total		200
II. Post Diploma Courses—		
1. Industrial Engineering	Central Polytechnic, Trivandrum	10
2. Television Engineering	Central Polytechnic, Trivandrum	10
3. Refrigeration and Air -Conditioning	Government Polytechnic, Kalamassery	10
4. Foundry Engineering	M.T.I., Trichur	10
5. Computer Application	Central Polytechnic, Trivandrum	30

APPENDIX 7—(cont.)

<i>Course offered</i> (1)	<i>Institute where offered</i> (2)	<i>Intake</i> (3)
6. Industry Safety Engineering	Supervisory Development Centre, Kalamassery	25
	Total	95
<i>111. Diploma Courses—</i>		
1. Civil Engineering	All Polytechnics except Government Polytechnic, Palai and all Women's Polytechnics	858
2. Mechanical Engineering	All Polytechnics except Government Polytechnic, Palai and Vennikulam and all Women's Polytechnics	845
3. Electrical Engineering	All Polytechnics except Government Polytechnic, Palghat, Palai, Vennikulam, Kothamangalam, S. N. Polytechnic, Kanhangad and all Women's Polytechnics	713
4. Electronics	Central Polytechnic, Trivandrum	50
	Government Polytechnic, Palghat	40
	Government Polytechnic, Kothamangalam	30
	Government Polytechnic, Palai	15
	Government Polytechnic, Vennikulam	15
	S.S.M. Polytechnic, Tirur	50
	Women's Polytechnic, Trichur	45
	Women's Polytechnic, Calicut	40

APPENDIX 7—(cont.)

<i>Course offered</i> (1)	<i>Institute where offered</i> (2)	<i>Intake</i> (3)
	Women's Polytechnic, Ernakulam	30
5. Automobile	Government Polytechnic, Kalamassery	50
	S. S. M. Polytechnic, Tirur	30
	S. N. Polytechnic, Kanhangad	35
6. Wood Technology	Government Polytechnic, Cannanore	15
7. Textile Technology	Central Polytechnic, Tri- vandrum	40
	Government Polytechnic, Cannanore	40
8. Polymer Technology	Government Polytechnic, Kottayam	30
9. Instrument Technology	Government Polytechnic, Palghat	30
	Government Polytechnic, Palai	15
	Women's Polytechnic, Trivandrum	15
10. Chemical Engineering/ Technology	Government Polytechnic, Calicut	30
	Government Polytechnic, Kalamassery	30
11. Tool and Die Engi- neering	Kerala Government Poly- technic, Calicut	15
12. Architecture	Women's Polytechnic, Ernakulam	15
13. Printing Technology	Institute of Printing Technology, Shoranur	60
14. Commercial Practice	Government Polytechnic, Kottayam and all Women's Polytech- nics	225
15. Costume Design and Dress making	All Women's Polytechnic except Women's Poly- technic, Ernakulam	95

APPENDIX 7—(cont.)

<i>Course offered</i> (1)	<i>Institute where offered</i> (2)	<i>Intake</i> (3)
16. Computer Science/ Technology	Government Polytechnic, Kalamassery	15
	Kerala Government Poly- technic, Calicut	15
	Government Polytechnic, Palai	15
Total		3544
<i>Diploma Courses (Part-time)—</i>		
1. Civil Engineering	Central Polytechnic, Tri- vandrum	24
	Government Polytechnic, Kalamassery	20
	M. T. I., Trichur	16
	Kerala Government Polytechnic, Calicut	16
2. Mechanical Engi- neering	Central Polytechnic, Trivandrum	24
	Government Polytechnic, Kalamassery	20
	M. T. I., Trichur	16
	Kerala Government Polytechnic, Calicut	16
3. Electrical Engineering	Central Polytechnic, Trivandrum	24
	Government Polytechnic, Kalamassery	20
	M. T. I., Trichur	16
	Kerala Government Poly- technic, Calicut	16
4. Textile Technology	Central Polytechnic, Trivandrum	15
	Total		243
<i>Certificate Courses in Textile Technology.—</i>		
Textile Technology	Central Polytechnic, Trivandrum and Government Polytech- nic, Cannannore	60

APPENDIX 7—(cont.)

<i>Course offered</i>	<i>Institute where offered</i>	<i>Intake</i>
(1)	(2)	(3)
<i>Fine Arts Institutions.—</i>		
Drawing and Painting Sculpture and Model- ling Commercial Art	Ravi Varma Institute of Fine Arts, Mavelikkara and Institute of Fine Arts, Trichur	60 each
<i>Food Craft Institutes and Extension Centres—</i>		
1. Craftsmanship in Crockery	Food Craft Institute at Kalamassery and Extension Centres at Trivandrum, Kotta- yam and Calicut	40
2. Bakery and Confec- tionary	Food Craft Institute, Kalamassery	15
3. Canning and Food Preservation Crafts- manship	Food Craft Institute, Kalamassery	15
4. Hotel Reception. Book keeping and Type- writing	Food Craft Institute, Kalamassery and all Food Craft Institute Extension Centres	40
5. Restaurant and Counter Service	Food Craft Institute, Kalamassery, Exten- sion Centres at Tri- vandrum, Kottayam, Calicut and Exten- sion Unit at Kotha- mangalam	40
6. House Keeping	Food Craft Institute, Kalamassery	..
7. Industrial/Institutional Food Service Manage- ment	Food Craft Institute, Kalamassery	..

College of Fine Arts*Degree in Courses in Fine Arts—*

1. Painting	} College of Fine Arts, Trivandrum	30 each
2. Sculpture		
3. Applied Art		

APPENDIX 7—(cont.)

<i>Course offered</i> (1)	<i>Institute where offered</i> (2)	<i>Intake</i> (3)
Short Term Courses—		
1. Cookery	Food Craft Institute, Kalamassery, Extension Centres, Calicut and Trivandrum	40
2. Bakery and Confectionary	Food Craft Institute, Kalamassery	20
3. Canning and Food Preservation	Food Craft Institute, Kalamassery	10
Commercial Institutions		
Diploma in Typewriting and Shorthand—		
	All Commercial Institutions	60 (in each)
1. Furniture Technology	Technical High Schools, Cannanore	..
2. Surface Finishing Technology	Technical High School, Badagara	..
3. Forging	Technical High School, Shornur	..
Tailoring, Garment Making Centres/Schools Vocational Training Centres		
Two Year Courses—		
1. Book Binding Centre	Book Binding Centre, Palkulangara and Kula- thur	60
2. Rattan	Rattan Training Centre, Paraniyam	15
3. Composing and Printing	Composing and Printing Centre, Vattiyookavu	30
4. Weaving	Weaving Training Centre, Aralumood	15
5. Tailoring and Embroidery	Government Industrial School, Iringalakkuda and Vadakanchery	40
One Year Course—		
Tailoring and Garment Making	All Tailoring, Garment Making Centres, J.T.S. and T.T.C.	20 each

APPENDIX 8
Hostel facilities 1986-87

Sl. No.	Name of Institution	No. of hostel blocks	Intake sanctioned
<i>Engineering Colleges—</i>			
1	College of Engineering, Trivandrum	5	690
2	Engineering College, Trichur	5	449
3	T.K.M. College of Engineering, Quilon	2	400
4	N.S.S. College of Engineering, Palghat	4	579
5	M.A. College of Engineering, Kothamangalam	3	340
6	Regional Engineering College, Calicut	7	1295
<i>Polytechnics—</i>			
1	Central Polytechnic, Trivandrum	1	180
2	Government Polytechnic, Kottayam	2	100
3	Do. Kalamassery	2	264
4	Do. Perinthalmanna	1	180
5	Do. Calicut	2	280
6	Do. Cannanore	2	280
7	Do. Muttom	..	..
8	Do. Meenangadi	..	..
9	Do. Vennikulam	..	..
10	Do. Palghat	..	..
11	Do. Kothamangalam	..	..
12	Do. Palai	..	..
13	Institute of Printing Technology, Shornur	..	..
14	Sree Rama Polytechnic, Valapad	..	..
15	Maharaja Technological Institute, Trichur	1	108
16	S.N. Polytechnic, Kottiyam	1	90
17	N.S.S. Polytechnic, Pandalam	1	104
18	Carmel Polytechnic, Alleppey	1	120
19	Thiagarajar Polytechnic, Alagappanagar	2	2 0
20	S.S.M. Polytechnic, Tirur	1	175
21	S.N. Polytechnic, Kanhangad	..	..
<i>Women's Polytechnics—</i>			
1	Women's Polytechnic, Trivandrum	1	36
2	Do. Ernakulam	..	..
3	Do. Calicut	1	80
4	Do. Trichur	1	80
<i>Technical High School—</i>			
1	Technical High School, Chervathur	1	40