



GOVERNMENT OF KERALA

**ADMINISTRATION REPORT
OF THE
DEPARTMENT OF
TECHNICAL EDUCATION**

FOR THE YEAR 1985-86

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ERNAKULAM—1987**

ADMINISTRATION REPORT
OF THE
DEPARTMENT OF TECHNICAL EDUCATION

FOR THE YEAR 1985-86

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The Government of Kerala
1987



HIGHER EDUCATION (G) DEPARTMENT

G. O. (P) 285/86/H.Edn., dated, Trivandrum,
10th November, 1986.

Abstract.—Education—Technical—Administration Report of Technical Education Department for the year 1985-86—Reviewed.

Read.—Letter No. L4/3905/86, dated 28th August 1986 from the Director of Technical Education, Trivandrum.

ORDER

1. Recorded.

2. Dr. P. J. George, continued as Director of Technical Education, Sri Kerala Varma Thirumulpad was Administrative Officer up to 30th September 1985 and thereafter Sri N. Krishnankutty Menon was Administrative Officer upto 31st December 1985.

3. The Office of the Director of Technical Education was functioning in the Padmavilasom Palace, Fort, Trivandrum.

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

Serial number	Category	Management			Total	Remarks/ share of new addition
		Government	Private	Quasi Government		
1	2	3	4	5	6	7
1	Engineering Colleges	2	3	1	6	..
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	..	..	4	4	..
6	College of Fine Arts	1	..	..	1	..

Serial number	Category	Management			Total	Remarks share of new addition
		Government	Private	Quasi Government		
7	Institute of Fine Arts	2	..	..	2	..
8	Commercial Institutions	17	..	..	17	4
9	Technical High School	44	..	..	44	10
10	Government Industrial Schools	2	..	..	2	..
11	Pre-Vocational Training Centres	19	..	..	19	..
12	Vocational Training Centres	5	..	..	5	..
13	Tailoring Training Centre	7	..	..	7	..
14	T.G.M.T. Centres	31	..	..	31	..
15	Tailoring Trade Schools	2	..	..	2	..
16	Technical Teachers Training Extension Centre	..	..	1	1	..
	Total	151	9	6	166	14

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:—

<i>Category</i>	<i>Intake</i>
Engineering Colleges (Under-graduate courses) (including Regional Engineering College, Calicut)	.. 2225
Post-graduate courses	.. 128
Part-time Degree Courses	.. 225
College of Fine Arts (Degree course)	.. 35

Polytechnics:

Post Diploma Courses	..	65
Diploma Courses	..	3482
Part-time Diploma Courses	..	261
Certificate Course in Textile Technology	..	60

Junior Technical School:

J.T.S.L.C. Course	..	2360
Plus two level Vocational Course	..	760
Craft course in Polytechnic	..	36
Fine Arts Institute Course	..	60
Food Craft Institute Courses	..	180
Commercial Institute Diploma Courses	..	580
One year Technical Courses of Post S.S.L.C. level	..	180
Tailoring and Garment making Training courses	..	740
Other Craft Courses	..	130

6. The details of Scholarships, Stipends granted to students of various institutions were as follows:

Sl. No.	Category of Institution	No. of Institution	Scholarship		Stipend	
			No. of students	Amount (in lakhs)	No. of students	Amount (in lakhs)
1	2	3	4	5	6	7
1	Government Engineering Colleges	2	945	8.87	494	5.87
2	Private Engineering Colleges	3	280	3.69	730	7.90
3	Government Polytechnics	15	49	0.58	1007	5.70
4	Private Polytechnics	6	25	0.25	1640	12.75
5	Women's Polytechnics	4	26	0.09	405	1.30
6	Technical High School	44	485	0.72	851	6.99
7	Pre-Vocational Training Centre	19	136	0.12	118	0.48
8	College of Fine Arts	1	..	..	80	0.45
9	Fine Arts Institutions	2	1	0.01	64	0.30
10	Food Craft Institute	4	5	0.02	111	0.54
11	Government Commercial Institute	17	..	..	22	0.18
12	T.G.M.T. Centre	35	.	..	65	0.52
13	Vocational Training Centre	12	..	..	30	0.20

7. The total provision under the State Plan for the Department during 1985-86 was Rs. 170 lakhs of which Rs. 86.50 lakhs were for works. This fund under works was operated by the Public Works Department. Hence the provision for the Department excluding works comes to Rs. 83.50 lakhs.

8. The total expenditure (tentative) under the State Plan till the end of March, 1986 was Rs. 306.19 lakhs, of which Rs. 87.22 lakhs were for works.

9. The total expenditure excluding works under the provision of Rs. 170 lakhs was Rs. 218.97 lakhs and the percentage was 262.

10. Under the Centrally Sponsored Scheme the total provision was Rs. 75 lakhs and the expenditure (Tentative) comes to Rs. 77.22 lakhs (102.96%).

11. The total expenditure (tentative) under the Non-Plan category is Rs. 977.51 lakhs against a provision of Rs. 883.42 lakhs.

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

— *Achievements.*—There has been remarkable progress and achievements in the field of Technical Education during the year 1985-86. These progress can be seen from Postgraduate level to the specially organised job oriented training programmes. In spite of the financial limitation of the Government it was possible to start 17 technical institutions, for the benefit of the ordinary people. It was also possible to start new courses at different levels and to improve the discipline and results.

13. *New Technical Institutions.*—Ten Technical High Schools, one each at Kavalam, Haripad, Kadaplamattom, Kanjirappally, Kurichi, Ayavana, Varappetty, Mulanthuruthy, Tirurangadi and Nannamukku were started during the year.

14. Government Commercial Institute at Kannapuram, Kallachi, Pothanikkad and Lalam, an Extension Centre of Food Craft Institute at Kottayam were also started. Sanction was also given by Government to start Technical High Schools at Naduvil in Cannanore District, Purappuzha in Idukki District, Ulloor in Trivandrum District, and Extension Centre of Food Craft Institute at Trichur and Cannanore.

15. *New Courses.*—In the College of Engineering, Trivandrum a Part-time M.B.A. course, with an intake of 30, was started.

16. Degree courses in Architectural Engineering with an intake of 20 at T.K.M. College of Engineering, Quilon and Electronics with an intake of 30 at Mar Athenacious College of Engineering, Kothamangalam were started.

17. In the Regional Engineering College, Calicut degree courses in Architectural Engineering and Computer Science were also introduced.

18. At diploma level, Computer Engineering was introduced at Government Polytechnic, Palai, Kalamassery and Calicut.

19. A Diploma course in "Cosmetology and Beauty Parlour Management" was started at Kalamassery and Kottayam.

20. In the newly started Technical High School, Modern trades in Electronics, T.V. repair and maintenance and maintenance of domestic appliances were introduced during the year.

21. Under the auspices of Lal Bahadur Shastri Engineering Research and Consultancy Centre a Diploma Course in Computer Applications was started at Trivandrum and Trichur.

22. *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.

23. Training programmes were also conducted under the auspices of Lal Bahadur Shastri Engineering Research and Consultancy Centre, in advanced cobol programming, heavy duty driving, T.V. servicing, soil investigation and testing drilling jig operation, for about 700 youths. Of these trainees about 250 youths were harijans. Nearly 1,200 youths were also given short term training in Computer Programming and Consol Operation during the year.

24. *Kerala State Science and Technology Museum.*—A newly gallery in Automobile Engineering was opened in the Museum. Orders for the purchase of Instruments costing Rs. 108 lakhs required for the Planetarium were also been given to Gotto Company, Japan.

25. *Regional Engineering College, Calicut.*—The Silver Jubilee of the College was celebrated during the year. The new buildings for the Computer Centre and Electronics Department were also inaugurated. An amount of Rs. 40 lakhs was obtained from the Central Government for the modernisation of laboratories in the College.

26. *Lal Bahadur Shastri Engineering Research and Consultancy Centre.*—The activities of the Centre were developed and entered into various fields during the year 1985-86. A building for the Centre has been completed at Kalamassery. The administrative responsibility of the Instrumentation Centre in the College of Engineering, Trivandrum has been given to the Lal Bahadur Shastri Engineering Research and Consultancy Centre. The Centre has been recognised as a major consultant in the field of Computer Application, Soil investigation and Structural Engineering. During the year 1985-86, short term technical courses for the benefit of about 1,500 persons have been conducted.

27. *Computer Centres*—Computer Centres have been established at Central Polytechnic, Trivandrum, Government Polytechnic, Palai and the Women's Polytechnic, Kalamassery, Trichur and Calicut. At the College of Engineering, Trivandrum and at Lal Bahadur Shastri Engineering Research and Consultancy Centre, Computers costing Rs. 17 lakhs and Rs. 9 lakhs respectively were installed. Government of India have given Rs. 4 lakhs to Government Polytechnic, Kalamassery for the purchase of a computer.

28. *Community Polytechnics*.—Government of India have recognised the Carmel Polytechnic, Alleppey, N. S. S. Polytechnic, Pandalam and Sree Rama Polytechnic, Valapad as Community Polytechnics. For the functioning of the year 1985-86 an amount of Rs. 6.25 lakhs has also been given to each of these polytechnics.

29. *Centre for Rural Technology Development*.—Government of India have given Rs. 5 lakhs as the first instalment, to Sree Rama Polytechnic, Valapad, for establishing a Centre for Rural Technology Development. Financial assistance will be received during the next year also.

30. *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, Quilon. 30 persons each will get admission for this three year Postgraduate course. Government of India will bear the major share of the expenses.

31. *Polytechnic Teacher Award*.—For the first time in India, an award for the best Polytechnic teacher in Kerala was instituted. The award is given under the auspices of the Indian Society for Technical Education and Government of Kerala has contributed Rs. 25,000 for this purpose. During the year under report, Sri M. Madhavan and Sri K. C. Mathew were the recipients of the award.

32. *International Seminars*.—An international seminar in 'Informatics' under the auspices of the College of Engineering, Trivandrum and the XV Annual Convention of Indian Society for Technical Education under the auspices of the Department of Technical Education were conducted during the year.

33. *Institute of Human Resources Development for Electronics*.—Anticipating the future development and jobopportunities in the field of Electronics, Government have decided to establish an Institute for Human Resources Development in Electronics in the State. A provision of Rs. 20 lakhs has been made in the budget for the initial expenses.

34. *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.

35. *Central Technical Library.*—A Central Technical Library with all the facilities has started functioning in the College of Engineering, Trivandrum.

36. *Student Amenities.*—Various programmes have been implemented for the betterment of student amenities. A new bus was purchased in the Engineering College, Trichur, and sanction was given for the purchase of a bus for the College of Engineering, Trivandrum. The construction of new block of the Ladies' hostel in the College of Engineering, Trivandrum, and the hostel for Sree Rama Polytechnic, Valapad are nearing completion. The hostel building for the Food Craft Institute, Kalamassery has been completed. In the Regional Engineering College, Calicut the work for the construction of a hostel has been started. Administrative sanction has also been given for the new hostel block at Engineering College, Trichur.

37. *Attention paid to Scheduled Caste/Scheduled Tribe and Weaker Sections of the Society.*—The Department spent about Rs. 5 lakhs under the Special Component Plan for giving various benefits to Scheduled Caste, Scheduled Tribe students. The scheme of free supply of text books worth Rs. 25 and 2 sets of uniform cloth to the S.C./S.T. students of Technical High Schools, Rs. 150 and 2 sets of uniform cloth 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 continued to be 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.T. were functioning during the year also.

38. 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.

39. About 1,500 Scheduled Caste/Scheduled Tribe students have been benefitted by the implementation of the above programmes.

40. The total outlay (both Plan and Non-Plan) during 1985-86 was Rs. 1,168.81 lakhs. During the year under report the total expenditure (tentative) came to Rs. 1,283.70 lakhs. In addition to this there was a provision of Rs. 74 lakhs under Centrally Sponsored

Schemes and the expenditure came to Rs. 77·22 lakhs. The amount provided under the Plan was for the various schemes of Development activities of Technical Education. The amount under the Non-Plan was mainly for the salaries and other expenses for staff and related activities.

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

(By order of the Governor)
M. S. K. RAMASWAMY,
Commissioner & Secretary.

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**ADMINISTRATION REPORT OF THE
DEPARTMENT OF TECHNICAL EDUCATION
FOR THE YEAR 1985-86**

Minister for Education—Sri T. M. Jacob

Top Executives

Secretary to Government—Sri M. S. K. Ramaswamy

Director of Technical Education—Dr. P. J. George

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 6 Engineering Colleges, 24 Polytechnics, one Institute of Printing Technology, 44 Junior Technical Schools, 4 Food Craft Institutes, 3 Fine Arts Institutions, 17 Government Commercial Institutions, 35 Government Industrial Schools/T. G. M. T. Centres, 13 Government Vocational Training Centres and 19 Pre-Vocational Training Centres. Apart from these Institutions there are two autonomous Institutions, the Lal Bahadur Sastri Engineering Research and Consultancy Centre and the Kerala State Science and Technology Museum. The Regional Engineering College, Calicut and the Food Craft Institutes at Kalamassery, Calicut, Trivandrum and Kottayam are also autonomous Institutions with the Minister for Education as Chairman.

There are also about 400 Industrial Schools and 120 Engineering Institutions under the private sector which are recognised by the Department.

The Directorate commands a Manpower strength of about 6,000 by way of teaching staff, Technical supporting staff, Administration staff and allied staff. The total intake of students exclusive of admission in Junior Technical Schools is over 6,700 and over 24,000 students are otherwise benefitted at certificate level including 2,360 students

admitted to Junior Technical Schools. All Engineering Colleges and almost all Polytechnics except the newly started ones are provided with hostel facilities and sufficient library facilities.

The original provision under the State Plan was Rs. 170 lakhs inclusive of the share operated by the P.W.D. (Rs. 86.50 lakhs). The Provision under non-plan was Rs. 883.42 lakhs.

The tentative expenditure during the period 1985-86 show 180.10 per cent in the original plan provisions (Rs. 306.19 lakhs). During the same period, the tentative non-plan expenditure comes to Rs. 977.51 lakhs.

The year under report had been comparatively rich in activities. 2,225 students were admitted to the degree courses in various Engineering Colleges and 3,482 students for Diploma Courses in various Polytechnics. Also the needs of about 12,000 students studying for the K.G.C.E. Examinations and over 20,000 students of K.G.T.E. Courses studying in provisionally recognised Institutions have been undertaken by the Department.

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

The Institutions provide instructions in Degree, Diploma, Post-graduate and Post Diploma levels on a regular and part-time basis. Part-time courses are restricted to a few institutions. The Silver Jubilee Celebrations of Technical High Schools, Perumbavoor and Regional Engineering College, Calicut were celebrated during the year.

There is considerable growth at all level of Technical Education in the year 1985-86. Substantial growth is registered at academic level in the quality of Education, number of courses and number of Institutions. New degree courses in Architectural Engineering at T.K.M. College of Engineering, Quilon, Electronics in M.A. College of Engineering, Kothamangalam, Architectural Engineering and Computer Science in Regional Engineering College, Calicut and a Part-time M.B.A. Course College of Engineering, Trivandrum were introduced. Diploma Course in Computer Engineering was started at Government Polytechnics at Palai, Kalamassery and Calicut. In the newly started Technical High Schools new trades in Electronics, T.V. Repairing and maintenance of Domestic Appliances were started. Under the Lal Bahadur Sastri Engineering Research and Consultancy Centre Diploma course in "Computer Applications" were conducted at Trivandrum and Trichur.

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 Institutions. Specialised training in Toy making was arranged for Harijan Girls at Trivandrum, Calicut and Trichur.

Ten new Technical High Schools and four Government Commercial Institutes were started during the year. Food Craft Institute Extension Centres at Kottayam, Trichur and Cannanore were started and classes at Kottayam Centre were started during the year.

There was an alround improvement of discipline, efficiency and activities in all Institutions under the Department during the year 1985-86. The Engineering Diploma Examination result showed an increase of 7 per cent over the previous year's results.

1. ORGANISATION STRUCTURE

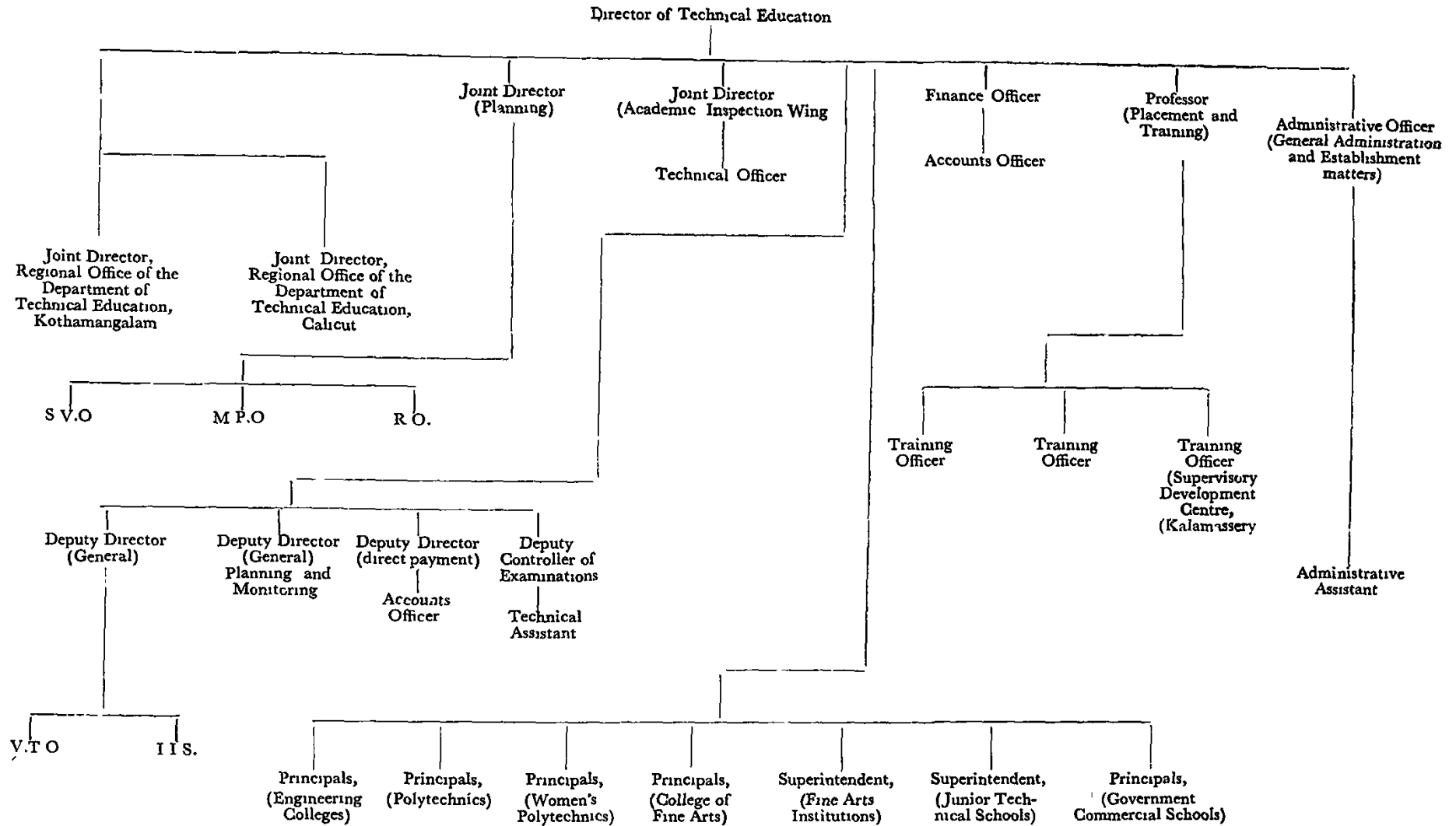
The organisation of the Department of Technical Education has its history traceable to 1957. Till then the Technical Institutions were controlled by the University and the Department of Industries and Commerce.

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

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

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

ORGANISATION OF THE DEPARTMENT OF TECHNICAL EDUCATION



S.V.O. — Stock Verification Officer
 V.T.O. — Vocational Training Organiser
 M.P.O. — Man Power Officer

I.I.S. — Inspector of Industrial Schools
 R.O. — Research Officer

2. THE DEPARTMENT IN 1985-86

2.1 *Introduction.*—The Department of Technical Education, Government of Kerala was started in 1957. There were only one Engineering College and Polytechnics to begin with. Today, the Department has grown into a crucial organisation in the field of Professional Education and training. Six Engineering Colleges, 25 Polytechnics, 44 Junior Technical 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 below gives the Directory of Personnel during the administrative year.

TABLE I

<i>Sl. No.</i>	<i>Name</i>	<i>Office held</i>
1.	Dr. P. J. George	Director
2.	Sri C. N. Rajan	Joint Director (Planning)
3.	Prof. Baburaj Pras'edom	Joint Director (Academic Inspection Wing)
4.	Sri K. Ramachandran	Joint Director (Placement and Training)
5.	Sri Kerala Varma Thirumulpad up to 30-9-1985	Administrative Officer
	Sri N. Krishnankutty Menon 7-10-1985 to 31-12-1985	„
	Sri G. Panduranga Das from 1-1-1986	„
6.	Dr. S. Narayanan	Deputy Director (Direct Payment)
7.	Sri E. Narayana Iyer (from June 1985 to 18-7-1985)	Deputy Director (General)
	Sri B. S. Warriier from 19-9-1985	„
8.	Sri N. Ganapathy Iyer	Deputy Director (Monitoring)
9.	Sri K. P. Hamza	Deputy Controller of Technical Examinations
10.	Sri P. Joseph	Finance Officer
11.	Sri N. E. Skariah	Administrative Assistant
12.	Sri P. Vidyadharan	Accounts Officer (Direct Payment)
13.	Sri V. P. Vivekanandan	Accounts Officer (General)
14.	Sri P. Bhaskaran Nair	Public Relation Officer
15.	Sri P. K. George	Research Officer
16.	Sri N. Sivadasan	Man Power Officer
<i>Regional offices—</i>		
1.	Sri P. S. Aravindakshan	Joint Director, Regional Officer Calicut
2.	Sri D. B. Lakshman	Joint Director, Regional Office, Kothamangalam
<i>Autonomous bodies—</i>		
1.	Sri K. Ramachandran Nair	Director, Kerala State Science and Technology Museum
2.	Dr. K. P. Parameswaran Pillai	Additional Director, Lal Bahadur Shastri Engg. Research and Consultancy Centre

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

2.3.2 *Staff position.*—There are about 6,000 people working under the Directorate belong to various categories and various Institutions. Institution wise their distribution for the year 1984-85 is given in the appendix.

2.3.3 *Institutions.*—Altogether there are 169 Institutions under the Directorate of Technical Education, 9 Private Institutions and 9 Quasi-Government Institutions.

Appendix 7 gives the District-wise distribution of these Institutions.

In addition to these Institutions, there are 409 Industrial Schools and 120 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 8.

TABLE 2
Number of Institutions under the Department of
Technical Education

Sl. No.	Category	Management				Remarks/share of new addition
		Govt.	Private	Quasi Govt.	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Engineering Colleges	2	3	1	6	..
2.	Polytechnics	14	6	..	20	..
3.	Womens Polytechnics	4	..	..	4	..
4.	Institute of Printing Technology	1	..	..	1	..
5.	Food Craft Institute and Extension Centre	..	..	4	4	..
6.	College of Fine Arts	1	..	..	1	..
7.	Institute of Fine Arts	2	..	..	2	..
8.	Commercial Institutions	17	..	..	17	4
9.	Technical High Schools	44	..	..	44	10
10.	Pre-vocational Training Centre	19	..	..	19	..
11.	Government Industrial Schools	2	..	..	2	..
12.	Vocational Training Centre	5	..	..	5	..
13.	Tailoring Training Centre	7	..	..	7	..
14.	T.G.M.T. Centres	31	..	..	31	..
15.	Tailoring Trade Schools	2	..	..	2	..
16.	Technical Teachers Training Extension Centre	..	..	1	1	..
	Total	151	9	6	166	14

TABLE 3

<i>Category</i>	<i>Intake</i>
Engineering Colleges (Undergraduate courses) (including R.E.C., Calicut)	2225
Postgraduate courses	128
Part-time degree courses	225
College of Fine Arts (degree course)	35
<i>Politechnics—</i>	
Post Diploma Courses	65
Diploma courses	3482
P. T. Diploma courses	261
Certificate course in Textile Technology	60
<i>Junior Technical Schools—</i>	
J T S. L. C. Course	2360
Plus two level vocational course	760
Craft Courses in Polytechnics	36
Fine Arts Institute courses	60
Food Craft Institute courses	180
Commercial Institute Diploma Courses	580
One year Technical Courses of Post S S.L.C. level	180
Tailoring and Garment making Training courses	740
Other-Craft Courses	130

2.3.5 *Scholarships and stipends.*—About 8,000 number of students drawn from various categories of Institutions have been awarded scholarship and stipends during the year. An amount about Rs. 15 lakhs was distributed as scholarship and an amount of about Rs 40 lakhs was distributed as stipend. The details of distribution is given in Appendix 9.

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

Engineering Colleges (Actual intake in hostels) ..	3753	(including Regional Engineering College, Calicut)
Polytechnics ..	2151	
Women's Polytechnics ..	196	
Technical High Schools ..	40	

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 1985–86 was Rs. 170·00 lakhs of which Rs. 86·50 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, 1986 was Rs. 306·19 lakhs of which Rs. 87·22 lakhs were for works. The percentage of expenditure out of the original provision of Rs. 170·00 lakhs was 180·10. Additional funds were allotted to meet the requirements.

Under the centrally sponsored scheme the total provision was Rs. 75·00 lakhs and the expenditure (tentative) comes to Rs. 77·22 lakhs (102·96 per cent).

The total expenditure (tentative) under the Non-plan category is Rs. 977·51 lakhs against a provision of Rs. 883·42 lakhs.

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

2.4 *Activities.*—The year 1985–86 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:—

Routine Academic Activities

2.4.1 *Engineering College.*—Over 1,600 candidates were selected for admission to the Engineering Colleges by the Commissioner for entrance Examination exclusive of Regional Engineering College, Calicut, Management quota and various reservation quota. These candidates were allotted to the different Engineering Colleges (both Government and Private) by the Directorate.

(i) **Government:** There are two Government Engineering colleges, one at Trivandrum and the other at Trichur. They offered courses at Undergraduate level in Basic Engineering disciplines like Civil, Electrical and Mechanical Engineering. At Trivandrum, additionally, Architecture, Industrial Engineering, Electronics and communication, Applied Electronics, Instrumentation Engineering and Computer Science were offered at degree level. At Trichur Chemical, production cum plant Engineering, Electrical Communication and Computer Science were also offered. The total intake at Trivandrum stood at 490 and Trichur at 410.

Both these Institutions offered Postgraduate programme in 16 different specialisations.

(ii) Private : There are 3 private Institutions. The T. K. M. College of Engineering, Quilon offered courses in Civil, Mechanical, Electrical and Electronics, Electro and communications production and Computer Science Architectural Engineering 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 strength of 300 apart from basic Engineering subjects offered an undergraduate course in Instrumentation and Control Engineering.

2. *Polytechnics*.—(i) 14 Government Polytechnics, 6 private Polytechnics, 4 Women's Polytechnics and one Institute of Printing Technology constitute the structure of Diploma level facilities under the Directorate. Apart from the 3 year Diploma courses in Civil, Electrical and Mechanical Engineering, courses were offered in Electronics, Instrument Technology, Chemical Technology, Textile Technology, Polymer Technology, Wood Technology, Automobile Engineering, Tool and Die Engineering Computer Engineering and Commercial Practice.

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

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

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

Altogether these Diploma level Institutions meet the demands from over 3,482 students.

3. *Technical High Schools*.—The Institutions conducted tests for admission to the 44 Technical High Schools in the State and admitted over 2,360 students observing rules regarding reservations.

4. *Other Institutions*.—(i) The Department has recognised Engineering Institutions to impart K. G. C. E. Courses to feed 1,2000 students. The number of recognised Institutions of this category is 120. 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 400 Industrial Schools. 80 Institutions are given grant-in-aid apart from the same from other Departments like Har Jan Welfare and Central Social Welfare Board. About 20,000 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 the last being the College of Fine Arts. Also a Craft Section is functioning at the Central Polytechnic, Trivandrum. The College of Fine Arts provides National Diploma. The Institute at Trichur provides a Diploma and at Mavelikkara a Certificate and Diploma Courses. Courses are run for Painting, Sculpture, and Applied Art at Trivandrum, Drawing and Painting, Sculpture, Modelling and Commercial Art at Mavelikkara and Drawing, Painting and Engraving and Commercial Art at Trichur.

2.4.2 *Part-time Courses.*—(1) Part-time courses leading to Degree were conducted in both the Government Engineering Colleges and T. K. M. College of Engineering, Quilon in the branches of Civil, Mechanical, Electrical Engineering, Chemical at Trichur and Electronics and Communications at Trivandrum are also conducted. A part-time M. B. A. Course was started at College of Engineering Trivandrum with an intake of 30. These courses are intended for Diploma holders and the Part-time Programme provides for avenues of career development.

(2) College of Engineering, Trivandrum continued the part-time Postgraduate Course of 3 years duration for teaching faculty.

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

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

(2) Post Diploma Courses were offered in the Central Polytechnic, Trivandrum (Industrial Electronics), (Television Engineering)

and (Computer Application) Government Polytechnic, Kalamassery (Air conditioning and Refrigeration) and in M. T. I., Trichur (Foundry Technology).

2.4.4 *Sports and Games.*—(1) The Inter Polytechnic Athletic Meet was held at N. S. S. Polytechnic, Pandalam and all Polytechnics actively participated in the meet.

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

(3) The Inter Junior Technical School Athletic Meet was held at Technical High School, Attingal. There was active participation from all Junior Technical Schools.

(4) The Inter Junior Technical School Youth Festival was held at Technical High School, Chittur.

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

2.4.6 *Jubilee Celebrations.*—The Silver Jubilee Celebrations of Technical High School, Perumbavoor and Regional Engineering College, Calicut were celebrated during the year.

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 Postgraduate levels. At degree level the intake capacity is 350 and at Postgraduate level 30. The Institute has started new degree Courses in Architectural Engineering and Computer Science. A new building for the Electronics Department was completed.

2.5 *Achievements.*—(1) There has been a remarkable progress and achievements in the field of Technical Education during the year 1985-86. These progress can be seen from Post-graduate level to the specially organised job-oriented training programmes. In spite of the financial limitation of the Government, it was possible to start 17 technical Institutions, for the benefit of the ordinary people. It was also possible to start new course at different levels and to improve the discipline and results.

(2) *New Technical Institutions.*—Ten Technical High Schools, one each at Kavalam, Haripad, Kadaplamattom, Kanjirappally, Kurichi, Ayavana, Varappetty, Mulanthuruthy, Tirurangadi and Nannamukku were started during the year.

Government Commercial Institutes at Kannapuram, Kallachi, Pothanikkad and Lalom an Extension Centre of Food Craft Institute at Kottiyam were also started. Sanction was also given by Government to start Technical High Schools at Naduvil in Cannanore District Purappuzha in Idukki District, Ulloor in Trivandrum District and Extension Centres of Food Craft Institute at Trichur and Cannanore.

(3) *New Courses.*—In the College of Engineering, Trivandrum a Part-time M.B.A. Course, with an intake of 30, was started.

Degree courses in Architectural Engineering with an intake of 20 at T.K.M. College of Engineering, Quilon and Electronics with an intake of 30 at Mar Athenacious College of Engineering, Kothamangalam were started.

In the Regional Engineering College, Calicut degree courses in Architectural Engineering and Computer Science were also introduced.

At diploma level, Computer Engineering was introduced at Government Polytechnic, Pala, Kalamassery and Calicut.

A diploma course in "Cosmetology and Beauty Parlour Management" was started at Kalamassery and Kottayam.

In the newly started Technical High Schools, modern trades in Electronics, T. V. repair and maintenance and 'Maintenance of domestic appliances' were introduced during the year.

Under the auspicious of Lal Bahadur Sastri Engineering Research and Consultancy Centre a diploma course in Computer Applications was started at Trivandrum and Trichur.

(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.

Training programmes were also conducted under the auspicious of Lal Bahadur Sastri Engineering Research and Consultancy Centre in advanced Cobol programming, heavy duty driving, T.V. servicing, soil investigation and testing—Drilling-jig operation; for about 700 Youths. Of these trainees about 250 youths were Harijans. Nearly 1,200 youths were also given short-term training in Computer Programming and Consol Operation during the year.

(5) *Kerala State science and Technology Museum.*—A new gallery in Automobile Engineering was opened in the Museum. Orders for the purchase of Instruments costing Rs. 108 lakhs required for the Planetarium were also been given to Gotto Company, Japan.

(6) *Regional Engineering College, Calicut.*—Degree courses in Architectural Engineering and Computer Science have been started. The Silver Jubilee of the College was celebrated during the year. The new buildings for the Computer Centre, and Electronics Department were also inaugurated. An amount of Rs. 40 lakhs was obtained from the Central Government for the modernisation of laboratories in the College.

(7) *Lal Bahadur Sastri Engineering Research and Consultancy Centre.*—The activities of the Centre were developed and entered into various fields during the year 1985-86. A building for the centre has been completed at Kalamassery. The administrative responsibility of the Instrumentation Centre in the College of Engineering, Trivandrum has been given to the Lal Bahadur Sastri Engineering Research and Consultancy Centre. The Centre has been recognised as a major consultant in the field of Computer application, Soil investigation and structural Engineering. During the year 1985-86, short-term technical courses for the benefit of about 1,500 persons have been conducted.

(8) *Computer Centres.*—Computer Centres have been established at Central Polytechnic, Trivandrum, Government Polytechnic, Palai and the Womens Polytechnic, Kalamassery, Trichur and Calicut. At the College of Engineering, Trivandrum and at Lal Bahadur Sastri Engineering Research and Consultancy Centre, Computers costing Rs. 17 lakhs and Rs. 9 lakhs respectively were installed. Government of India have given Rs. 4 lakhs to Government Polytechnic, Kalamassery for the purchase of a Computer.

(9) *Community Polytechnics.*—Government of India have recognised the Carmel Polytechnic, Alleppey, N.S.S. Polytechnic, Pandalam and Sree Rama Polytechnic, Valapad as Community Polytechnics. For the functioning of the year 1985-86 an amount of Rs. 6.25 lakhs has also been given to each of these Polytechnics.

(10) *Centre for Rural Technology Development.*—Government of India have given Rs. 5 lakhs as the first instalment, to Sree Rama Polytechnic, Valapad, for establishing a centre for Rural Technology Development. Financial assistance will be received during the next year also.

(11) *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, Quilon. 30 persons each will get admission for this three year Postgraduate Course. Government of India will bear the entire expenses of the course except 10 per cent of the recurring expenditure.

(12) *Polytechnic Teacher Award.*—For the first time in India, the award for the best polytechnic teacher in Kerala was instituted. The award is given under the auspicious of the I.S.T.E. and Government

of Kerala has contributed Rs. 25,000 for this purpose. During the year under report Sri M. Madhavan and Sri K. C. Mathew were the recipient of the award.

(13) *International seminars.*—An International seminars in 'Informatics' under the auspicious of the College of Engineering, Trivandrum and the XV Annual Convension of I.S.T.E. under the auspicious of the Department of Technical Education were conducted during the year.

(14) *Institute for Human Resources Development in Electronics*—Anticipating the future development and job-opportunities in the field of Electronics, Government have decided to establish an Institute for Human Resources Development in Electronics in the State. Token provision has also been made in the budget for the initial expenses.

(15) *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.

(16) *Central Technical Library.*—A Central Technical Library with all the facilities has started functioning in the College of Engineering, Trivandrum.

(17) *Student Amenities.*—Various programmes have been implemented for the betterment of student amenities. A new bus was purchased in the Engineering College, Trichur, and sanction was given for the purchase of a bus in the College of Engineering, Trivandrum. The construction of new block of the ladies hostel in the College of Engineering, Trivandrum, and the hostel for Sree Rama Polytechnic, Valapad is nearing completion. The hostel building for the Food Craft Institute, Kalamassery has been completed. In the Regional Engineering College, Calicut the work for the construction of a hostel has been started, and administrative sanction was also given for the new hostel block at Engineering College, Trichur.

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'.

The Department spent about Rs. 5.00 lakhs under the special component plan for giving various benefits to S.C./S.T. students. The scheme of free supply of Text 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. Centre 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.

About 1500 S.C./S.T. students have been benefitted by the implementation of the above programmes.

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

Direct assistance from Government of India 1985-86

<i>Sl. No.</i>	<i>Name of Institution</i>	<i>Amount received (Rs. in lakhs)</i>	<i>Purpose</i>
(1)	(2)	(3)	(4)
1.	M. A. College of Engineering, Kothamangalam	37.25	Modernisation of laboratories providing facilities in emerging areas
2.	College of Engineering, Trivandrum	32.00	Modernisation of laboratories providing facilities in emerging areas and for M.C.A. Course
3.	Engineering College, Trichur	15.00	do.
4.	Regional Engineering College, Calicut	42.00	do.
5.	N.S.S. College of Engineering, Palghat	15.00	do.
6.	T.K.M. College of Engineering, Quilon	28.00	do.
7.	Carmel Polytechnic, Alleppey	11.25	Community Polytechnics
8.	N.S.S. Polytechnic, Pandalam	11.25	do.
9.	Sree Rama Polytechnic, Valapad	11.25	do.
		5.00	Centre for Rural Technology Development
10.	S. N. Polytechnic, Kanhangad	11.40	Community Polytechnic and Production Centre
11.	Government Polytechnic, Perinthalmanna	5.00	Community Polytechnic

3. GENERAL

3.1 *Progress in the use of Malayalam as Official Language.*—Steps were taken to use Malayalam for correspondence with class IV Staff and convert the various forms used in the department into Malayalam. 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. This will be a great help to students of Malayalam medium schools when class project is introduced.

3.2 *Directorate office shifted.*—The office of the Director of Technical Education was shifted in January 1986 to the ground floor of the Electricity Board Building in the Power House Road.

3.3 *Entrepreneurship Development Programme.*—A two day Entrepreneurship Development Programme was organised by the State Bank of Travancore for selected 35 final year students of College of Engineering, Trivandrum during January 23-24, 1986.

3.4 *Annual Convention of I.S.T.E.*—The XV Annual Convention of Indian Society for Technical Education was held at Trivandrum during December 14-16, 1985. Over 240 delegates from all parts of the country and representing various types of technical Institutions attended the convention. An exhibition of Modern Engineering products and Appliances was also organised as part of the convention.

3.5 *Instrumentation centre.*—The Instrumentation centre functioning in the College of Engineering, Trivandrum has been transferred to L.B.S.E.R.C. centre by the Government of Kerala. This was done to make it functioning more efficient, effective and purposeful.

3.6 *Workshop on modern information methodologies.*—A one day workshop on "Modern information Methodologies in the Management of Government business" was held at Trivandrum on November 28, 1985 prior to the international conference on informatics. The workshop was jointly sponsored by the Department of Technical Education and the Institute of Management in Government.

3.7 *Outstanding I.E.E.E student branch.*—The I.E.E.E. student branch of College of Engineering, Trivandrum has been selected as one of the ten outstanding student branches of 1984-85 in the world. This recognition by the I.E.E.E. Headquarters at New Jersey, U.S.A., is based on the various activities of the student branch which include regular lecture on Technical and managerial topics, arranging student seminars and contests, organising industrial visits, etc.

3.8 *Training course in micro-computers.*—A three week training programme on Micro-computers was organised by the Department of Electronics and Communication, College of Engineering, Trivandrum during August/September 1985. 30 participants from Engineering Colleges and Polytechnics in the state attended the programme. A micro-processor Kit designed and fabricated by the Electronics Department was given to each participants.

3.9. *Supervisory Development Programmes*—For the benefit of the final year Engineering College and Polytechnic students 9 supervisory Development programmes were conducted in the institutions during the year.

3.10 *I.S.T.E. Summer Schools*.—I.S.T.E. summer schools for Technical Education were conducted in the following institution:—

- | | | |
|--|---|---|
| 1. College of Engineering,
Trivandrum | : | 1. Structural Engineering system
2. Electromagnetic Devices |
| 2. Regional Engineering College: | : | 1. Modelling of simulation of Engineering System
2. Rural and Regional transportation planning
3. 4 weeks summer institute in Mathematics for High School teachers. |
| 3. Sree Rama Polytechnic,
Valapad | : | I. S. T. E. Course. |

3.11 *Class Project*.—The College of Engineering, Trivandrum is a resource centre for the implementation of project, Computer literacy and studies in schools (Class). There are five schools in Trivandrum which are participating in the project. The objective of the project is to create computer awareness among the school students. A training programme for the teachers of the schools participating in the project was conducted from 2nd May 1985 to 29th May 1985.

3.12 *Publications*.—Directorate of technical education continued the publication for the quarterly titled "Tek News Letter" highlighting major activities of the Department and new trends in technical education.

3.13 *Recruitment of personnel belonging to S.C./S.T.*—Due to shortage of S.C./S.T. students coming out of Engineering College, 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 recategorise these posts into lecturers 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 as at present nearly two-thirds of the total seats allotted for S.C./S.T. students for Degree Courses are being not utilised due to lack of applicants.

3.14 Grants—

Category	Plan (Rs. in Lakhs)	Non-Plan (Rs. in Lakhs)
Private Engineering Colleges	Nil	87.80
Private Polytechnics	2.50	75.90
Private Industrial Schools	..	2.56
Regional Engineering College	4.00	63.23
Food Craft Institutes	10.00	11.28

Scholarships—

Scholarships and stipends paid during 1985-86 to students from Kerala Stu- dying outside the State	0.29
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3.15 *Man Power Planning and Development (Inclusive of training of officers).*—(1) Faculty from Engineering Colleges continue to undergo advanced Education in Engineering at selected and approved centres in India under the quality improvement programme. The faculty members are deputed for higher studies in Postgraduate level and Ph. D. Level. During the year under report 14 candidates have been deputed for M. Sc./M. Tech. and 4 candidates for Ph. D.

(2) Similar Programme is implemented in Polytechnics and in the year 33 candidates were deputed to T. T. T. I.

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

(4) A study on the employment pattern of women diploma holders passed out from Women's Polytechnics has been completed.

(5) A study on the wastage of S.C./S.T. students in Engineering Colleges and Polytechnics has been completed.

4. FINANCIAL REVIEW

The Financial resources have been already outlined earlier. The total outlay (both Plan and Non-Plan) during 1985-86 was Rs. 1168.81 lakhs. During the year under report the total expenditure (tentative) came to Rs. 1283.70 lakhs. In addition to this there was a provision of Rs.74.00 lakhs under Centrally Sponsored Schemes and the expenditure came to Rs.77.22 lakhs. The provision and expenditure pertaining to 1985-86 in comparison with 1984-85 is given under in the table.

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

**Scheme-wise statement of Plan Provision and Expenditure during the years
1984-85 and 1985-86**

Sl. No.	Head of account and Name of scheme	Provision for 1985-86	Expenditure for 1985-86 (Tentative)	Provision for 1984-85	Expenditure for 1984-85
(1)	(2)	(3)	(4)	(5)	(6)
1	277F (a) 1 Directorate 477 (d) 1	..	..	7.52	7.48
2	277F (a) 2 Statistical and Placement Cell in the Directorate	..	..	4.00	..
3	277F (a) Examination wing in the Directorate	..	..	1.50	1.56
4	277F (b) 1 Technical High Schools	2.50	2.77	11.00	16.83
5	277F (b) 3 Pre-Vocational Training Centres	1.70	1.66	7.44	4.82
6	277F (F) 4-Starting of New Technical Schools 477 (d) 1	44.89	64.68	9.00	15.96
7	277F (b) 5-Vocationalisation of Education at Post-secondary stage in Technical Schools	20.00	24.10	14.06	39.23
8	277F (b) 5-Vocationalisation of Education at Post-secondary stage in Technical Schools	1.00	4.59	10.00	27.55
9	277F (c) 1 Government Polytechnics 477 (d) 1	6.10	6.41	30.00	13.12
10	277F (c) 2 Womens Polytechnics	25.00	37.63	6.50	4.75
11	277F (c) 3 Centres for Diploma in Commercial Practice 477 (d) 1	2.65	2.58	18.00	20.19
12	277F (c) 4 New Polytechnics	3.80	6.18	2.50	1.43
	277F (d) Development of Engineering College, Trivandrum	2.00	..	4.62	9.43
		12.26	13.48	0.50	..
		4.50	4.57	9.90	36.81
				3.00	3.05

Sl. No.	Head of account and Name of scheme	Provision for 1985-86.	Expenditure for 1985-86. (Tentative)	Provision for 1984-85	Expenditure for 1984-85
(1)	(2)	(3)	(4)	(5)	(6)
13.	277F (d) 4 Development of Engineering College, Trichur	6.08	5.96	5.90	6.16
	477 (d) 1	35.00	25.43	7.00	4.15
14.	277F (d) 6 Upgrading of Engineering College, Travandrum by providing centralised facilities	10.00	8.93	9.50	8.80
15.	277F (d) 7 Installation of computer at Kerala University Camps	1.50	1.36	1.00	1.00
16.	277F (d) 8 Part-time Courses	8.82	7.00	3.50	7.09
17.	277F (d) 13 Central Instrument workshop	..	..	1.48	1.15
18.	277F (e) 1 Private Engineering Colleges	0.25	..	..	..
19.	277F (e) 2 Regional Engineering College, Calicut	4.00	4.00	3.00	3.00
20.	277F (e) 3 Private Polytechnics	2.50	2.46	1.25	1.28
21.	277F (e) 4 Food Craft Institute, Kalamassery and Extension Centre	10.00	7.60	8.25	8.17
22.	277F (h) 1 Faculty Development	17.21	14.13	11.80	15.93
23.	277F (h) 5 Apprenticeship training	5.62	6.82	5.00	6.84
24.	277F (h) 6 Industrial Residence	0.20	0.54	0.70	0.63
25.	277 F (h) 8—Revision of Staff Structure	..	..	7.00	18.83
26.	277 F (h) 9—Tailoring and Garmentmaking Training Centre	..	..	3.03	2.28
	477 (d) 1	..	..	0.50	..

27.	277 F (h) 10—Tailoring and Garmentmaking Training Centres—Special Component Plan	0.50	0.24	1.80	2.52
28.	277 F (i) 5—Technological Museum	40.00	40.00	4.25	4.59
	477 (d) 1	..	..	0.75	..
29.	277 F (i) 8—Diversification of Courses	..	..	19.00	32.66
30.	277 F (i) 9—Modernisation of Laboratories	..	..	2.00	1.82
31.	277 F (i) 10—Free Supply of Text Books, Instruments etc. to Scheduled Caste students—Special Component Plan	0.90	1.62	2.50	2.97
32.	277 F (i) 11—Free Supply of Text Books, Instruments etc. to Scheduled Tribe students—Tribal Sub-plan	0.05	0.05	0.13	0.04
33.	277 F (i) 12—Supply of Text Books, Instruments etc. to Scheduled Tribe students Dispersed tribe	..	..	0.07	..
34.	277 F (i) 13—Matching grant for Central Schemes	1.76	1.76	3.00	2.35
35.	277 F (i) 15—Remedial Courses—Special Component Plan	3.00	3.07	3.00	2.72
36.	277 F (i) 19—Granting of autonomy to one Engineering College and two Polytechnics	..	..	0.10	..
37.	277 F (i) 23—Regional Engineering College, Calicut. Merit promotion to teachers (State share)	0.50	..	..	..
38.	277 F (i) 24—Starting of Post B.Sc. Course in Computer Science in Polytechnic, Trichur (State share)	..	..	0.37	..

<i>Sl. No.</i>	<i>Head of Account and name of scheme</i>	<i>Provision for 1985-86</i>	<i>Expenditure for 1985-86 (Tentative)</i>	<i>Provision for 1984-85</i>	<i>Expenditure for 1984-85</i>
(1)	(2)	(3)	(4)	(5)	(6)
39.	277 F (i) 25—Diploma in Computer application at Central Polytechnic, Trivandrum	1.00	0.80	..	..
40.	277 F (i) 26—State Board of Technical Education	0.10	0.10	..	..
41.	278 (a) 7—College of Fine Arts, Trivandrum	6.00	5.71	7.50	9.91
	477 (e) i	1.00	..	1.00	..
42.	Construction of staff quarters	3.00	0.06	5.00	6.53
	477 (d) 1				
	Total	285.39	306.19	259.02	358.53
<i>Centrally sponsored schemes (100 per cent Central Assistance)</i>					
1.	277 F (d) 3—Postgraduate course in Engineering College, Trivandrum	41.00	39.14	29.52	43.35
2.	277 F (d) 5—Postgraduate course in Engineering College, Trichur	13.00	14.87	15.48	17.71
3.	277 F (d) 15—Direct Central Assistance for Development of Government Engineering Colleges and Polytechnics	20.00	23.27	15.00	16.30
	Total	74.00	77.22	60.00	77.36
<i>Centrally Sponsored Scheme (50 per cent Central Assistance)</i>					
1.	271 F (1) 23—Regional Engineering College, Calicut merit promotion to teachers	0.50	..	0.10	..

2.	277 F (1) 25—Starting of course in Computer Science in Polytechnics, Trivandrum	0.50	..	0.37	..
3.	277 F (e) 4—Food Craft Institutes	5.00	..	..	..
	Total	6.00	..	0.47	..

TABLE

Scheme-wise Statement of non-plan provision and expenditure during the years 1985-86 and 1984-85

<i>Sl. No.</i>	<i>Head of account and name of scheme</i>	<i>Provision for 1985-86</i>	<i>Expenditure for 1985-86 (Tentative)</i>	<i>Provision for 1984-85</i>	<i>Expenditure for 1984-85</i>
(1)	(2)	(3)	(4)	(5)	(6)
1.	277 F (a) 1—Direction and Administration	24.95	35.22	19.08	20.68
2.	277 F (a) 2—Statistics and Placement	1.17	1.60	..	..
3.	277 F (a) 3—Examination Wing	11.00	13.71	..	..
4.	277 F (b) 1—Technical High Schools	127.65	139.96	115.69	103.26
5.	277 F (b) 2—Industrial Education	10.95	13.72	9.64	8.38
6.	277 F (b) 3—Pre-Vocational Training Centres	26.10	27.94	6.04	5.73
7.	277 F (c) 1—Government Polytechnics	178.90	182.92	135.95	128.90
8.	277 F (c) 2—Womens Polytechnics	22.19	20.15	18.09	16.41
9.	277 F (c) 3—Government Commercial Institutes	13.40	16.20	..	..
10.	277 F (c) 4—New Polytechnics	45.95	41.13	..	..
11.	277 F (d) 1—Government Engineering Colleges	131.67	134.78	117.86	125.03
12.	277 F (d) 13—Central Instrument Workshop	1.05	1.05	..	..
13.	277 F (e) 1—Private Engineering Colleges	87.80	132.00	79.90	119.63

TABLE—(cont.)

Sl. No.	Head of account and name of scheme	Provision for 1985-86	Expenditure for 1985-86 (Tentative)	Provision for 1984-85	Expenditure for 1984-85
(1)	(2)	(3)	(4)	(5)	(6)
14.	277 F (e) 2—Regional Engineering College, Calicut	63.23	63.23	44.00	44.00
15.	277 F (e) 3—Private Polytechnics	75.90	87.00	69.00	79.50
16.	277 F (e) 4—Food Craft Institutes	11.28	11.28	8.48	8.48
17.	277 F (e) 5—Industrial Schools	2.50	2.51	3.30	2.85
18.	277 F (f) 1—Scholarships	6.50	0.45	0.10	0.09
19.	277 F (h) 9—T.G.M.T. Centres	3.54	3.82	..	..
20.	277 F (h) 10—T.G.M.T. Centres Special Component Plan	2.00	2.64	..	..
21.	277 F (i) 8—Diversification of Courses	28.11	29.50	..	..
22.	278 (a) 2—Scholarship of Arts	7.58	7.64	6.68	7.16
23.	278 (a) 7—College of Fine Arts	6.00	9.06	..	..
	Total	883.42	977.51	633.81	670.10

5. LIST OF APPENDICES

1. Members of the State Board of Technical Education.
2. Members of the Board of Studies in Engineering and Technology.
3. Members of the Industrial Liaison Board.
4. List of Heads of Institutions.
5. Staff position.
6. List of Technical Institutions in Kerala.
7. District-wise distribution of Technical Institutions
8. Intake capacity and courses offered.
9. Scholarships and Stipends.
10. Hostel facilities.

APPENDIX I

Members of State Board of Technical Education

1. Hon'ble Minister for Education—Chairman.
2. The Secretary, Higher Education, Government of Kerala.
3. The Secretary to Government, General Education.
4. The Secretary to Government, Finance Department.
5. The Secretary to Government, Planning Department.
6. The Secretary to Government, Industries Department.
7. The Director of Industries and Commerce.
8. The Director of Collegiate Education.
9. The Director of Medical Education.
10. Director of Public Instructions.
11. Chief Engineer, Public Works Department (General).
12. Chief Engineer, (Electrical) K.S.E. Board.
13. The Chief Engineer, 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 Adviser (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. I.I.T. and Centre.
28. Electronic Research and Development Centre, KELTRON, Trivandrum.

APPENDIX 1—(cont.)

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, Diploma Engineering Association, Kerala.

ENGINEERING INDUSTRIES:

33. Representative, Association of Indian Engineering Industry.
34. Chairman and Managing Director, KELTRON, Trivandrum.
35. Managing Director, H.M.T., Kalamasserry.
36. Managing Director, FACT, Udyogamandal.

ARMED SERVICES:

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

TECHNICAL INSTITUTIONS:

(a) *Engineering Colleges.*—

38. Dr. S. Narayana Iyer, Principal, Engineering College, Trivandrum.
39. Professor P. O. J. Lebba, Principal, T.K.M. College of Engineering, Quilon.
40. Dr. S. Unnikrishna Pillai, Principal, R.E.C., Calicut.

(b) *Polytechnics.*—

41. Sri K.S.S. Naik, Principal, Maharaja's Technological Institute, Trichur.
42. Bhaskara Kurup, N., Principal, N.S.S. Polytechnic, Pandalam.

(c) *Technical Schools.*—

43. Sri L. Mathew, Superintendent, Technical High School, Adoor.

EXPERTS:

44. Dr. R. Jayaraman, Dean of U.G. Studies, Engineering College, Trivandrum (Civil).
45. Dr. R. Ravikumar, Dean of P.G. Studies, Engineering College, Trivandrum.
46. Dr. K. A. Muraliedharan, Professor, College of Engineering, Trivandrum—Electrical.

APPENDIX 1—(cont.)

47. Dr. M. Harisankar, Professor, Engineering College, Trivandrum—Electronics.
48. Dr. Govindan Aniyath Parel, Professor, Engineering College, Trichur—Chemical.
49. Sri Jipson Charles, Principal Women's Polytechnic, Trivandrum—Commerce.
50. Sri V. K. Jawaharlal, Principal, I.P.T., Shoranar—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. N. S. Valiathan, Director, S C.M. Centre, Trivandrum—Bio Engineering
54. Miss Thankam Philip, Principal, Institute of Hotel Management, Bombay—Food Craft.
55. Sri C. P. Porinchukutty, Principal, College of Fine Arts, Trivandrum—Fine Arts.
56. Head of Department, Textile Technology, (P.S.G.) College of Engineering, Coimbatore—Textile Technology.
57. Dr. K. Ramachandran, Professor of Placement and Training D.T.E.'s Office, Trivandrum.
58. Dr. K. Sathayanandan, Professor of Physics, University of Cochin—Science.
59. Professor G. Nagappan Nair, (Retired Principal) Nalanchira, Trivandrum—Mathematics.
60. Director of Technical Education, Trivandrum—Convener.

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, Kerala, Government Polytechnic, Calicut
5. Sri K. P. Pothan, Head of Section in Textile Technology, Central Polytechnic, Trivandrum.

APPENDIX 2—(cont.)

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. Dr. S Narayana Iyer, Principal, College of Engineering, Trivandrum.
10. Deputy Director (General) Directorate of Technical Education, Trivandrum.
11. Dr. R. Venketaraman, Professor in-charge, Technical Teachers' Training Institute, Extension Centre, Kalamassery.
12. Sri C. I. Mathew, Joint Director, D.T.E.'s Office, Trivandrum.
13. Dr. S. Hariharan, Joint Director, Directorate of Technical Education, Trivandrum.

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's 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.

APPENDIX 3—(cont.)

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 | .. | .. |
| 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, Water and Waste Water Authority, Trivandrum | .. | .. |
| 11. Managing Director, ALIND, Udarsiromony Road, Trivandrum | .. | .. |
| 12. Managing Director, Premier Tyres Limited, Kalamassery, Always-603 104 | .. | .. |
| 13. Managing Director, Kerala News Print Mills, H.P.C. Unit, Velloor, Kottayam | .. | .. |
| 14. Managing Director, Western India Plywoods Limited, Baliapattam, Cannanore-670 010 | .. | .. |
| 15. Chairman and Managing Director, K.S.I.E., St. Joseph's Press Buildings, Cotton Hill, Trivandrum | .. | .. |
| 16. Managing Director, Kerala Minerals and Metals Limited, Breach Road, Quilon-1 | .. | .. |

APPENDIX 3—(cont.)

17. Managing Director, Steel Industries Kerala Limited, Oottukuzhi, Trivandrum	..	Member
18. Managing Director, Telk, Angamaly South, Ernakulam-683 573	..	"
19. Chairman and Managing Director, KELTRON, Keltron House, Vellayambalam	..	"
20. Managing Director, Cochin Refineries Limited, P.B. No. 2, Ambalamughal-682 302	..	"
21. Chairman and Managing Director, FACT Ltd., Udyogamandal, Pin. 683 501	..	"
22. General Manager, H.M.T. Colony Post, Kalamassery-683 503	..	"
23. General Manager, Instrumentation Limited, Kanjikode West, Palghat-67823	..	"
24. Managing Director, Cochin Shipyard Limited, P.B. No. 1653, Cochin-682 015	..	"
25. Director of Technical Education, Government of Kerala, Trivandrum-695 023	} ..	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 Man-Power Development in the State.

(ii) *At the State level the board shall.*—(a) Identify the areas and fields in which courses at various levels are needed and also set up expert committee to design appropriate courses.

(b) Recommend appropriate changes in the curriculam 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.

APPENDIX 3—(cont.)

(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.

4. 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.

5. 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 Head of Institution

<i>Name of institution</i>	<i>Name of head of institution</i>
I. ENGINEERING COLLEGES:	
1. College of Engineering, Trivandrum	Dr. T. S. Ramanath Iyer
2. Engineering College, Trichur	Professor P. C. George
3. T. K. M. College of Engineering, Quilon	,, P. O. J. Lebba
4. M. A. College of Engineering, Kothamangalam	,, V. K. M. John
5. N.S.S. College of Engineering, Palghat	,, C. Somasekharan Nair
6. Regional Engineering College, Calicut	Dr. S. Unnikrishnan Pillai
II. POLYTECHNICS:	
1. Central Polytechnic, Trivandrum	Sri P. George John
2. Government Polytechnic, Kottayam	,, N. K. Chacko
3. Government Polytechnic, Kalamassery	1. Sri C.M. Venkiteswaran 2. ,, K. P. Pothen
4. Maharaja's Technological Institute, Trichur	Sri K. S. Sreenivasa Naick
5. Sree Rama Polytechnic, Valapad	,, K. R. Chandrasekharan
6. Government Polytechnic, Perinthalmanna	1. Sri Krishnamoosad 2. ,, K.M. Govindankutty
7. Kerala Government Polytechnic, Calicut	Sri P. Alavikutty
8. Government Polytechnic, Cannanore	,, V. K. Mohammed
9. Government Polytechnic, Palghat	,, N. Ramachandra Pisharady
10. Government Polytechnic, Muttam, Idukki	,, N. K. Madhusoodanan
11. Government Polytechnic, Mullanangadi, Wynad	,, M. Jayaraj

APPENDIX 4—(cont.)

<i>Name of institution</i>	<i>Name of head of institution</i>
12. Government Polytechnic, Kothamangalam	1. Sri P. George John 2. „ M. Madhavan Chelad
13. Government Polytechnic, Vennikulam	Sri K. Padmanabhakurup
14. Government Polytechnic, Palai	„ K. K. Balakrishna Menon
15. S.N. Polytechnic, Kottiyam	„ N. G. Bahuleyan
16. N. S. S. Polytechnic, Pandalam	„ N. Bhaskarakurup
17. Carmel Polytechnic, Alleppey	„ P. Balan
18. Swamy Nithyananda Polytechnic, Kanhangad	„ V. N. Ramakrishnan Nambiar
19. Thyagarajar Polytechnic, Alagappanagar	„ Francis C. Joseph
20. S.S.M. Polytechnic, Tirur	„ K. Abdulla
21. Institute of Printing Technology, Shoranur	„ V. K. Jawaharlal

III. WOMEN'S POLYTECHNICS:

1. Women's Polytechnic, Trivandrum	Sri Jipson Charles
2. Do. Trichur	Smt. P. P. Khadija
3. Do. Calicut	Sri M. Venkiteswaran
4. Do. Ernakulam	„ M. Narayanan

IV. FINE ARTS:

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. Balakrishnan

V. SUPERVISORY DEVELOPMENT CENTRE:

Supervisory Development Centre, Kalamassery	Sri M. Rajendra Babu
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APPENDIX 4—(cont.)

<i>Name of institution</i>	<i>Name of head of institution</i>
VI. FOOD CRAFT INSTITUTES:	
1. Food Craft Institute, Kalamassery	Smt. B. Ambika Nair
2. Food Craft Institute, Extension Centre, Calicut	Sri N. P. Chathakutty
3. Do Trivandrum	„ D. A. L. Clement
4. Do. Kottayam	„ P. C. George Kutty
VII. TECHNICAL HIGH SCHOOLS:	
1. Techn.cal High School, Nedumangad	1. Sri L. Lekshmana Iyer
2. Do. Attingal	2. „ V. Raveendra Babu
3. Do. Ezhukone	Sri V. Surendran
4. Do. Adoor	„ L. Mathew
5. Do. Krishnapuram	„ P. N. Mathew
6. Do. Shertallai	„ T.M. Joseph
7. Do. Pampady	„ P. C. Antony
8. Do. Palai	„ T. I. Thomas
9. Do. Perumbavoor	„ V. J. Kuriakose
10. Do. Koratty	„ J. D. Varunni
11. Do. Kodungalloor	„ P. K. Varkey
12. Do. Trichur	„ R. M. Rajan
13. Do. Kunnamkulam	„ C. Ramachandran
14. Do. Shoranur	„ K.N. Dharmaratnam
15. Do. Kuttippuram	„ K. Venugopalan
16. Do. Adimali	„ A. Ramachandran
17. Do. Chittur	„ K. Mohammed Haneefa
18. Do. Palghat	„ K. P. Krishnanunni Nair
19. Do. Calicut	„ N. Ramachandran
20. Do. Badagara	„ K. T. Kunhimoideen
21. Do. Manjeri	„ E. Rajan
22. Do. Cannanore	„ K. Raman
23. Do. Cheruvathur	„ K. Haridas
24. Do. Mattannur	„ K. K. Bhaskarapoduval
25. Do. Sultan Battery	„ C. P. Unnikrishnan Nair
26. Do. Manantholy	„ C. K. Moosakoya
27. Do. Vannappuram	„ J. Abdulsalam
28. Do. Mogral Puthur	„ E. A. Georgekutty
29. Do. Naruvambram	„ A. P. Chakrapani
30. Do. Payyoli	„ P. P. Velayudhan Nambiar
31. Do. Teekoy	„ K. V. Raveendran
	„ R. Sidharaman Nair

APPENDIX 4—(cont.)

	<i>Name of institution</i>	<i>Name of head of institution</i>
32.	Technical High School, Kulathupuzha	Sri S. Madhusoodana Kumar
33.	Do. Elanji	,, R. Krishnankutty Nair
34.	Do. Kulathur	,, K. Lekshmanan
35.	Do. Kadaplamattom	,, C. J. Paul
36.	Do. Haripad	,, C. K. Gopalakrishna Pillai
37.	Do. Kurichu	,, V. N. Raju
38.	Do. Varapetty	,, P. V. Scariah
39.	Do. Ayavana	,, K. A. Kuriako
40.	Do. Kanjirappally	,, K. M. Mohammed
41.	Do. Mulanthuruthy	,, P. K. Karthikeyan
42.	Do. Kavalam	,, K. G. Narayanan Asari
43.	Do. Nannamukku	,, K. N. Sathyandan
44.	Do. Thirurangadi	,, A. Abdul Kareem

VIII. GOVERNMENT COMMERCIAL INSTITUTES:

1.	Government Commercial Institute, Trivandrum	Sri R. Krishnankutty
2.	Do. Alleppey	Smt. P. Remadevi
3.	Do. Ernakulam	,, K. T. Suganthi
4.	Do. Palghat	,, V. Indira
5.	Do. Manjeri	Sri M. Muhammed Abdurahiman
6.	Do. Kanchiyar	,, Mohanaprasad
7.	Do. Qulandy	,, P.K. Jyothiam
8.	Do. Punalur	,, V. Levakumar
9.	Do. Ettumanoor	,, V. A. Joseph
10.	Do. Mala	,, T. A. Baby
11.	Do. Kothamangalam	,, S. Ramadothan Unni
12.	Do. Kalpetta	,, M. Sukumaran
13.	Do. Taliparamba	Smt. V. T. Aley
14.	Do. Vannappuram	Sri M. P. Mathew
15.	Do. Kallachu	,, T. K. Kelu Nair
16.	Do. Pothanikad	Smt. K. Girija Devi
17.	Do. Lalam	Sri T. Thulasi

APPENDIX 5
Staff position 1984-85

Category of institution	Staff strength							
	Class I		Class II		Class III		Class IV	
	M	F	M	F	M	F	M	F
1	2	3	4	5	6	7	8	9
Engineering Colleges: Government ..	104	15	224	38	265	34	58	19
Do. Private ..	86	4	122	54	261	19	55	4
Regional Engineering College Quasi Government ..	39	..	112	16	174	26	60	7
Polytechnics: Government ..	15	..	248	27	631	93	153	45
Do. Private ..	6	..	131	12	215	31	75	12
Women's Polytechnic (All Government) ..	3	1	10	7	40	32	16	15
Junior Technical Schools (Government) ..	..	..	34	..	756	122	17	18
Fine Arts Institutions (All Government) ..	1	..	15	..	55	8	12	2
Government Commercial Institution ..	..	..	12	1	38	21	21	11
Government Pre-Vocational Training Centre ..	..	..	..	..	95	39	15	4
Quasi Government Food Craft Institute ..	..	..	2	1	29	5	8	..

APPENDIX 6

List of Technical Institutions in Kerala

<i>Serial number</i>	<i>Category</i>	<i>Name of institution</i>	<i>Location</i>	<i>Management</i>
(1)	(2)	(3)	(4)	(5)
I	Engineering Colleges	College of Engineering	1. Trivandrum	Government
		Engineering College	2. Trichur	do.
		T.K.M. College of Engineering	3. Quilon	Private
		M.A. College of Engineering	4. Kothamangalam	do.
		N.S.S. College of Engineering	5. Palghat	do.
		Regional Engineering College	6. Calicut	Quasi Government
II	Polytechnics	Government Polytechnic	1. Kottaym	Government
		do.	2. Kalamasserry	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. Vennukulam	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. Kottayam	Private
		N. S. S. Polytechnic	16. Pandalam	do.
		Carmel Polytechnic	17. Alleppey	do.

APPENDIX 6—(cont.)

<i>Serial number</i> (1)	<i>Category</i> (2)	<i>Name of institution</i> (3)	<i>Location</i> (4)	<i>Management</i> (5)
		Thiagarajar Polytechnic	18. Alagappanagar	Private
		S. S. M. Polytechnic	19. Tirur	do.
		Swami Nithyananda Polytechnic	20. Kanhangad	do.
III	Women's 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 Schools	1. Attingal	Government
			2. Nedumpangad	do.
			3. Adoor	do.
			4. Ezhukone	do.
			5. Sherthallai	do.
			6. Krishnapuram	do.
			7. Pampady	do.
			8. Palai	do.
			9. Perumbavoor	do.
			10. Koratty	do.
			11. Kodungallur	do.
			12. Trichur	do.
			13. Kunnamkulam	do.
			14. Chittur	do.

15.	Manjeri	do.
16.	Shoranur	do.
17.	Badagara	do.
18.	Calicut	do.
19.	Kuttiapuram	do.
20.	Palghat	do.
21.	Admali	do.
22.	Sulthan Battery	do.
23.	Cannanore	do.
24.	Mattannur	do.
25.	Cheruvathur	do.
26.	Mananthody	do.
27.	Vannapuram	do.
28.	Kulathur	do.
	(Neyyattinkara)	
29.	Payyoli	do.
30.	Mogralputhur	do.
31.	Elanj	do.
32.	Kulathupuzha	do.
33.	Teekoy	do.
34.	Neruvambram	do.
35.	Kadaplamattom	do.
36.	Haripad	do.
37.	Kurichu	do.
38.	Kavalam	do.
39.	Varapetty	do.
40.	Ayavana	do.
41.	Nannamukku	do.
42.	Thururagadi	do.
43.	Mulanthuruthy	do.
44.	Kanjirapally	do.

APPENDIX 6—(cont.)

<i>Serial number</i> (1)	<i>Category</i> (2)	<i>Name of institution</i> (3)	<i>Location</i> (4)	<i>Management</i> (5)
VI	Commercial Institutes	Government Commercial Institute	1. Trivandrum	Government
		Diploma Course in Shorthand and Typewriting	1. Trivandrum	do.
			2. Punalur	do.
			3. Alleppey	do.
			4. Ettumannoor	do.
			5. Kanchiyar	do.
			6. Ernakulam	do.
			7. Kothamangalam	do.
			8. Mala	do.
			9. Norani	do.
			10. Manjeri	do.
			11. Quiland	do.
			12. Taliparamba	do.
			13. Kannapuram	do.
			14. Kallachi	do.
			15. Pattanikad	do.
			16. Lalam	do.
			17. Kalpetta	do.
VII	Fine Arts Institutions	College of Fine Arts	1. Trivandrum	do.
		Institute of Fine Arts	2. Mavelikkara	do.
			3. Trichur	do.
VIII	Industrial/Tailoring and Garment Making Centres	Tailoring and Garment Making Training Centre	1. Pattom	do.
			2. Quilon	do.
			3. Tripunithura	do.

	4. Narakkal	do.
	5. Kalpathy	do.
	6. Kondotty	do.
	7. Badagara	do.
	8. Dharmadam	do.
	9. Payyannur	do.
	10. Kumuli	do.
	11. Thodupuzha	do.
	12. Edappally	do.
	13. Chawghat	do.
	14. Mankad	do.
	15. Ponnani	do.
	16. Vengara	do.
	17. Kuttichura	do.
	18. Sulthan Battery	do.
	19. Kasargod	do.
	20. Trichur	do.
	21. Mannarghat (SC/ST)	do.
	22. Chathannur (SC/ST)	do.
	23. Mananthoddy (SC/ST)	do.
	24. Agali (SC/ST)	do.
	25. Sholayar (SC/ST)	do.
	26. Kallada (SC/ST)	do.
	27. Vaithiri (SC/ST)	do.
	28. Peermedu (SC/ST)	do.
	29. Rajkkad (SC/ST)	do.
	30. Melukkavu (SC/ST)	do.
	31. Kottayam	do.
	32. Haripad	do.
	33. Devikulam	do.
	34. Irinjalkkuda	do.
	35. Vadakkancherry	do.
Tailoring Trade School		
do.		
Government Industrial School		
do.		

APPENDIX 6—(cont.)

<i>Serial number</i>	<i>Category</i>	<i>Name of institution</i>	<i>Location</i>	<i>Management</i>	
(1)	(2)	(3)	(4)	(5)	
IX	Vocational Training Centres	Tailoring Training Centres	1. Parassala	Government	
			2. Pachallur	do.	
			3. Karumkulam	do.	
			4. Kanjiramkulam	do.	
			5. Maranallur	do.	
			6. Chirayinkil	do.	
			7. Chengallur	do.	
			8. Kandala	do.	
			9. Aralummodu	do.	
			10. Vattiyoor kavu	do.	
				Weaving Training Centre	
				Composing and Printing Centre, Vattiyurkavu	
				Book Binding Centre	11. Palkulangara
	do.	12. Kulathur (Trivandrum)	do.		
	Ratton Training Centre	13. Paraniyam	do.		
X	Pre-vocational Training Centres	Pre-vocational Training Centre,	1. Attingal	All Government	
			2. Cannanore	do.	
			3. Kodungallur	do.	
			4. Manjeri	do.	
			5. Nedumangad	do.	
			6. Mattannur	do.	
			7. Kunnamkulam	do.	
			8. Koratty	do.	
			9. Pampady	do.	
			10. Krishnapuram	do.	

XI Food Craft Institute Food Craft Institute
 Food Craft Institute
 Extension Centre
 do.

- | | | |
|-----|-------------|-----|
| 11. | Ezhukone | do. |
| 12. | Chittur | do. |
| 13. | Shoraur | do. |
| 14. | Cheruvathur | do. |
| 15. | Badagara | do. |
| 16. | Perumbavoor | do. |
| 17. | Shertalai | do. |
| 18. | Adoor | do. |
| 19. | Palai | do. |
| 1. | Kalamassery | do. |
| 1. | Calicut | do. |
| 2. | Trivandrum | do. |
| 3. | Kottayam | do. |

APPENDIX 7
District-wise distribution of Technical Institutions

Category	Trivandrum	Quilon	Alleppey	Pathanamthitta	Kottayam	Idukki	Ernakulam	Trichur	Palghat	Malappuram	Calicut	Wynaad	Cannanore	Kasaragod	Total	New	
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
Engineering Colleges	..	1	1	..	..	..	1	1	1	..	1	..	..	..	6	..
Polytechnics	..	1	1	1	2	2	1	2	3	1	2	1	1	1	20	..	
Women's Polytechnics	..	1	..	..	..	..	1	1	..	..	1	..	..	..	4	..
Institute of Printing Technology	1	..	..	..	..	..	1	..	
Food Craft Institute	..	1	..	..	1	..	1	..	..	..	1	..	..	..	4	..
College of Fine Arts	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Institute of Fine Arts	1	..	..	..	..	1	..	..	..	..	..	..	2	..	
Commercial Institutes	..	1	1	1	2	1	3	1	1	1	2	1	2	..	17	4	
Technical Schools	..	3	2	4	1	6	2	5	4	3	4	3	4	1	44	10	
Pre-Vocational Training Institutes (Centre)	..	2	1	2	1	2	..	1	3	2	1	1	3	..	19	..	
Vocational Training Centre	..	5	..	..	..	..	..	..	..	..	..	..	..	..	5	..
Tailoring Training Centre	..	6	..	1	..	..	..	..	..	..	..	..	..	..	7	..
Tailoring Trade School	1	..	1	..	..	..	..	..	..	..	..	2	..	
Industrial Schools	2	..	..	..	..	..	..	2	..	
Tailoring Garment Making Training Centre	..	1	2	..	..	2	4	3	3	3	5	2	3	3	31	..
T.T.T. Extension Centre	1	..	..	..	..	..	..	..	1	..	
Total	..	23	8	11	4	16	8	18	19	12	12	13	7	13	2	166	14

APPENDIX 8

Intake capacity and courses offered

<i>Courses offered</i>	<i>Intake</i>	<i>Institutions where offered</i>
(1)	(2)	(3)
I. ENGINEERING COLLEGES:		
A. POSTGRADUATE COURSES:		
<i>Civil Engineering.—</i>		
1. Structural Engineering	6	College of Engineering
	10	R.E.C., Calicut
2. Hydraulics	4	College of Engineering, Trivandrum
3. Soil Mechanics	6	do.
4. Public Health Engineering	4	do.
5. Transport and Traffic Engineering	4	do.
<i>Mechanical Engineering.—</i>		
1. Heat Power Engineering	4	do.
2. Machine Design	4	do.
3. Production Engineering	6	Engineering College, Trichur
4. Refrigeration and Air Conditioning	10	R.E.C., Calicut
5. Propulsion Engineering	4	College of Engineering, Trivandrum
6. Industrial Refrigeration and Cryogenic Engineering	6	T.K.M. Engineering College, Quilon
7. Industrial Engineering	8	R.E.C., Calicut

APPENDIX 8 (cont.)

<i>Courses offered</i>	<i>Intake</i>	<i>Institutions where offered</i>
(1)	(2)	(3)
<i>Electrical—Electives.—</i>		
1. Power System	6	College of Engineering, Trivandrum
2. Electrical Machine Design	4	College of Engineering
3. Control System	4	do.
4. Navigational and Guidance Control	6	Engineering College, Trichur
	4	College of Engineering, Trivandrum
5. Instrumentation and Control System	10	Regional Engineering College, Calicut
<i>Electronics—Electives.—</i>		
1. Microwave Engineering	6	College of Engineering, Trivandrum
2. Applied Electronics	4	do.
<i>Chemical—Electives.—</i>		
1. Process Control	6	Engineering College, Trichur
B. DEGREE COURSES:		
1. Civil Engineering	560	All 6 Engineering Colleges
2. Mechanical Engineering	540	do.
3. Electrical Engineering	300	Engineering Colleges at Trichur, M.A. College of Engineering (60) Kothamangalam (90) N.S.S. Engineering College, Palghat (90) Regional Engineering College, Calicut (60)

4. Electrical and Electronics Engineering	180	College of Engineering, Trivandrum (90) T.K.M. College of Engineering, Quilon (90)
5. Architecture	80	College of Engineering, Trivandrum (30) T.K.M. College of Engineering, Quilon (20) Regional Engineering College, Calicut (30)
6. Electronics and Communication Engineering	220	College of Engineering, Trivandrum (50) Engineering College, Trichur (30) T.K.M. Engineering College, Quilon (50) M.A. College of Engineering, Kothamangalam (30) Regional Engineering College, Calicut (60)
7. Applied Electronics and Instrumentation	30	College of Engineering, Trivandrum (30)
8. Industrial Engineering	20	College of Engineering, Trivandrum (20)
9. Computer Science	120	College of Engineering, Trivandrum (30) College of Engineering, Trichur (30) T.K.M. Engineering College, Quilon (30) Regional Engineering College, Calicut (30)
10. Chemical Engineering	70	Engineering College, Trichur (50) T.K.M. Engineering College, Quilon (20)
11. Production-cum-plant Engineering	25	Engineering College, Trichur (25)
12. Production Engineering	50	T.K.M. College of Engineering (20) Regional Engineering College, Calicut (30)
13. Instrumentation and Control Engineering	30	N.S.S. College of Engineering, Palghat (30)
G. PART-TIME DEGREE COURSE		
1. Civil Engineering	55	College of Engineering, Trivandrum (20) College of Engineering, Trichur (20) T.K.M. College of Engineering, Quilon (15)

APPENDIX 8 (cont.)

<i>Courses offered</i>	<i>Intake</i>	<i>Institutions where offered</i>
(1)	(2)	(3)
2. Mechanical Engineering	55	College of Engineering, Trivandrum (20) College of Engineering, Trichur (20) T.K.M. College of Engineering, Quilon (15)
3. Electrical Engineering	55	College of Engineering, Trivandrum (20) Engineering College, Trichur (20) T.K.M. College of Engineering, Quilon (15)
4. Electronics	15	College of Engineering, Trivandrum (15)
5. Chemical Engineering	15	Engineering College, Trichur (15)
6. Part-time M.B.A.	30	College of Engineering, Trivandrum (30)
II. COLLEGE OF FINE ARTS:		
Degree courses in Fine Arts :		
1. Painting	} 30	College of Fine Arts, Trivandrum
2. Sculpture		
3. Applied Art		
III. POLYTECHNICS :		
<i>A. Post Diploma courses.—</i>		
1. Industrial Engineering	10	Central Polytechnic, Trivandrum
2. Television Engineering	10	do.
3. Computer Application	25	do.
4. Refrigeration and Air Conditioning	10	Government Polytechnic, Kalamassery
5. Foundry Engineering		Maharaja's Technological Institute, Trichur

Cr.
44

B. *Diploma courses—*

1. Civil Engineering	858	All Polytechnics except Palai.
2. Mechanical Engineering	843	All Polytechnics except Palai and Vennikkulam.
3. Electrical Engineering	713	All Polytechnics except Palai, Vennikkulam Kothamangalam, Palghat and Kanhangad.
4. Electronic	305	Central Polytechnic, Trivandrum, Government Polytechnic, Palghat, Government Polytechnic, Kothamangalam, Vennikkulam, S.S.M. Polytechnic, Tirur, Women's Polytechnic, Trichur, Calicut and Ernakulam.
5. Chemical Engineering	60	Government Polytechnic Kalamassery and Kerala Government Polytechnic, Calicut.
6. Automobile Engineering	118	Government Polytechnic Kalamassery, S.S.M. Tirur, S.N. Polytechnic, Kanhangad.
7. Computer Technology	45	Government Polytechnic Palai, Kalamassery and Kerala Government Polytechnic, Calicut.
8. Instrument Technology	65	Women's Polytechnic, Trivandrum, Government Polytechnic, Palghat and Palai.
9. Polymer Technology	30	Government Polytechnic, Kottayam.
10. Wood Technology	15	Government Polytechnic, Cannannore.
11. Tool and Die Engineering	15	Kerala Government Polytechnic, Calicut.
12. Textile Technology	80	Central Polytechnic, Trivandrum and Government Polytechnic. Cannannore
13. Architecture	15	Women's Polytechnic, Ernakulam.
14. Costume Design and Dress Making	95	Women's Polytechnic, Trichur, Trivandrum and Calicut.
15. Commercial Practice	165	All Women's Polytechnics.
16. Printing Technology	60	Institute of Printing Technology, Shoranur

APPENDIX 8—(cont.)

<i>Courses offered</i> (1)	<i>Intake</i> (2)	<i>Institutions where offered</i> (3)
<i>C. Part-time diploma courses—</i>		
1. Civil Engineering	82	Central Polytechnic, Trivandrum (30) Government Polytechnic, Kalamassery (20) Kerala Government Polytechnic, Calicut (16) M.T.I. Trichur (16)
2. Mechanical Engineering	82	Central Polytechnic, Trivandrum (30) Government Polytechnic, Kalamassery (2) M.T.I., Trichur (16) Kerala Government Polytechnic, Calicut (16)
3. Electrical Engineering	82	Central Polytechnic, Trivandrum (30) Government Polytechnic, Kalamassery (20) M.T.I., Trichur (16) Kerala Government Polytechnic, Calicut (16)
4. Textile Technology	15	Central Polytechnic, Trivandrum (15)
<i>D. Certificate courses in Textile Technology—</i>		
1. Textile Technology	60	Central Polytechnic, Trivandrum (30) Government Polytechnic, Cannanore (30)
<i>E. Craft courses in Polytechnic—</i>		
1. Ratten and Basket making	} 36	Central Polytechnic, Trivandrum
2. Lacquer work		
3. Carpet and Durrie weaving		
4. Certificate in Fibre re-inforced plastics	20	Central Polytechnic, Trivandrum

IV. FINE ARTS INSTITUTIONS:

- | | | |
|---------------------------|----|--|
| 1. Fine Arts Institutions | 60 | Ravi Varma Institute of Fine Arts, Mavelikara and Institute of Fine Arts, Trichur. |
|---------------------------|----|--|

V. FOOD CRAFT INSTITUTE CERTIFICATE COURSES:

- | | | |
|---|-----|--|
| 1. Restaurant and Counter service | 100 | Food Craft Institute, Kalamassery and Extension Centre, Calicut, Kottayam and Trivandrum |
| 2. Cookery | 100 | do. |
| 3. Hotel Reception, Book keeping and Typewriting | 100 | do. |
| 4. Bakery and confectionery | 20 | Food Craft Institute, Kalamassery |
| 5. Industrial and Institutional Food Service Management | 20 | do. |
| 6. House keeping | 15 | do. |
| 7. Canning and Food Preservation | 20 | do. |

VI. GOVERNMENT COMMERCIAL INSTITUTIONS:

- | | | |
|---|----|---------------------------|
| 1. Diploma in Typewriting and Shorthand | 60 | All Commercial Institutes |
|---|----|---------------------------|

VII. SHORT-TERMS (ONE YEAR) TECHNICAL COURSE OF POST S.S.L.C. LEVEL:

- | | | |
|----------------------------------|----|----------------------------------|
| 1. Furniture Technology | 30 | T.H.S., Badagara and Cannanore |
| 2. Surface furnishing Technology | 30 | T.H.S., Badagara |
| 3. Forging | 15 | T.H.S., Shoranur |
| 4. Fibre reinforced plastics | 20 | Central Polytechnic, Trivandrum. |

APPENDIX 8—(cont.)

<i>Courses offered</i>	<i>Intake</i>	<i>Institutions where offered</i>
(1)	(2)	(3)
VIII. TAILORING, GARMENT MAKING CENTRES/SCHOOL—TWO YEAR COURSES:		
1. Book Binding Centre	60	Book Binding Centre, Palkulangara and Kulathur.
2. Rattan	15	Rattan Training Centre, Paraniyam.
3. Composing and Printing	30	Composing and Printing Centre, Vattiyoorkavu.
4. Weaving	15	Weaving Training Centre, Aralummood.
5. Tailoring and Embroidery	40	Government Industrial School, Irinjalakuda and Vadak-kancherry.

One year courses—

1. Tailoring and Garment making	20 each	All T.G M.T. Centres, Tailoring Trade School and Tailoring Training Centres.
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IX. TECHNICAL HIGH SCHOOLS:

In 44 Technical High Schools spread all over the State as given earlier about 33 different trades are offered with a total intake of 2265.

X. PRE-VOCATIONAL TRAINING CENTRES:

Training in about 20 trades are offered through P.V.T.C. attached to T.H.S., Attingal, Manjeri Kodungallur, Cannanore, Nedumangad, Chittoor, Cheruvathur, Kunnamkulam, Koratty, Pampady, Palai, Krishnapuram, Shertalai, Ezhukone, Shoranur, Adoor, Mattannoor, Perumbavoor and Badagara—Total intake is 380.

XI. VOCATIONAL COURSES:

Vocational courses at plus 2 level is offered in various trades in the Technical High Schools at Cheruvathur, Attingal, Badagara, Kodungallur, Manjeri, Shoranur, Adoor, Pampady, Chittur, Mattannur, Palai, Ezhukone, Perumbavoor, Cannanore, Shertalai, Kunnamkulam, Koratty, Nedumangad and Krishnapuram.

APPENDIX 9

Scholarship and stipends during 1985-86

Serial number	Category of institution	No. of institution	Scholarship		Stipend	
			No. of students	Amount (Rs. lakhs)	No. of students	Amount (Rs. lakhs)
1	2	3	4	5	6	7
1	Government Engineering Colleges ..	2	945	8.87	494	5.87
2	Private Engineering Colleges ..	3	280	3.69	730	7.90 (1984-85)
3	Government Polytechnics ..	15	49	0.58	1007	5.70
4	Private Polytechnics ..	6	25	0.25	1640	12.75 (1984-85)
5	Women's Polytechnics ..	4	26	0.09	405	1.30
6	Technical High School ..	44	485	0.72	851	6.99
7	Pre-Vocational Training Centre ..	19	136	0.12	118	0.48
8	College of Fine Arts ..	1	..	..	80	0.45
9	Fine Arts Institutions ..	2	1	0.01	64	0.30
10	Food Craft Institute ..	4	5	0.02	111	0.54
11	Government Commercial Institute ..	17	..	..	22	0.18
12	T. G. M. T. Centre ..	35	..	..	65	0.52
13	Vocational Training Centre ..	12	..	..	30	0.20

APPENDIX 10

Hostel Facilities 1985-86

<i>Sl. No.</i>	<i>Name of institution</i>	<i>No. of hostel blocks</i>	<i>Intake sanctioned</i>
(1)	(2)	(3)	(4)
<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, Palghat	.. 7	1295
<i>Polytechnics—</i>			
1.	Central Polytechnic, Trivandrum	.. 1	180
2.	Government Polytechnic, Kottayam	.. 2	100
3.	Government Polytechnic, Kalamassery	.. 2	264
4.	Government Polytechnic, Perinthalmanna	.. 1	180
5.	Government Polytechnic, Calicut	.. 2	280
6.	Government Polytechnic, Cannanore	.. 2	280
7.	Government Polytechnic, Muttom	.. ..	..
8.	Government Polytechnic, Meenangadi	.. ..	..
9.	Government Polytechnic, Vennikulam	.. ..	..
10.	Government Polytechnic, Palghat	.. ..	..

APPENDIX 10—(cont.)

<i>Sl. No.</i>	<i>Name of institution</i>	<i>No. of hostel blocks</i>	<i>Intake sanctioned</i>
(1)	(2)	(3)	(4)
11.	Government Polytechnic, Kothamangalam	.. ..	..
12.	Government Polytechnic, Palai	.. ..	..
13.	Institute of Printing Technology, Shornur	.. ..	..
14.	Sree Rama Polytechnic, Valapad	.. ..	..
15.	Maharajas 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	270
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.	Women's Polytechnic, Ernakulam	.. ..	..
3.	Women's Polytechnic, Calicut	.. 1	80
4.	Women's Polytechnic, Trichur	.. 1	80
<i>Technical High School—</i>			
1.	Technical High School, Cheruvathur	.. 1	40

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

1. J. S. Paul and Sons, Cannanore.
2. G. Vital Prabhu, News Agent, Manjeswar.
3. M/s K. R. Brothers, Calicut.
4. M/s Moulavi Book Depot, Kasargod.
5. Kottayil Gopalan, Tellicherry
6. M/s Touring Book Stall, Calicut.
7. M/s K. P. Ahammed Kunhi & Bros., Cannanore.
8. M/s George Press, Ottappalam.
9. M/s Pallipat Stores, Irinjalakuda.
10. M/s St. Joseph Press, Perinthalmanna.
11. M/s Travancore Law House, Ernakulam.
12. M/s P. K. Brothers, Calicut
13. M. V. Johnson, Law Book Seller, Near Civil Courts, Tellicherry.
14. Manager, Higginbothams (Pvt) Ltd., Trivandrum.
15. M/s Current Books, Publishers & Book Sellers, Trichur.
16. M/s Educational Supplies, Book Sellers, Publishers & Printers, Palghat.
17. M/s H & C Stores, Dealers in Books, Kunnankulam.
18. Manager, Reddiar Press & Book Depot, Trivandrum
19. K. Parameswaran Pillai, Stamp Vendor, Pulimood, Trivandrum.
20. M/s Educational Supplies Depot, Trivandrum.
21. M/s Javachandra Book Depot, Chalai, Trivandrum.
22. S. Subramonia Iyer, Book Seller & Stamp Vendor, Kazhakootam, Trivandrum.
23. N. Parameswaran Pillai, Alummoodu Veedu, Stamp Vendor, Kottarakara
24. S. Krishna Iyer, Stamp Vendor, Ayurveda College View, Trivandrum.
25. N. Neelakanta Iyer, Stamp Vendor, Padmavilasam Street, Fort Trivandrum.
26. Manager, K. V. Press & Book Depot, Main Road, Attingal.
27. K. Bhaskaran Nair, News Agent, Trivandrum.
28. Proprietor, Kerala Book House, Cranganore.
29. K. K. Raghava Menon, Popular Book Depot, Cranganore.
30. C. M. Book Stall, Publishers, Parayil, Kunnankulam.
31. A. Jose, Proprietor, S. V. Press & Book Depot, Neyyattinkara.
32. M. Paramanandam, Proprietor, Ambika Press & Book Depot Neyyattinkara.
33. The New Order Book Company, Ellise Bridge, Ahamedabad.
34. M/s Pai & Company, Broadway, Ernakulam.
35. S. Hariharakrishna Iyer, Vinayaka Book Stall, Pazhavangadi, Trivandrum
36. K. P. Gopalan, Swaraj Book Stall, Court Road, Quilandy.
37. Amba Sekhara Menon, Proprietor, Menon Stores, Chuttur, Cochin
38. M. I. Abraham, News Agent & Book Seller, Punalur.
39. K. G. Thomas, K. V. Book Depot, Chengannur.
40. C. L. Joseph, National Stores & Book Sellers, Thana, Irinjalakuda.
41. N. Krishna Moorthy, Merchant, Manantoddy.
42. T. I. Joseph & Sons, Prakasam Press & Book Depot, Irinjalakuda.
43. P. Radhakrishna Pillai, Sivavilasom, Kizhakkekkara, Kottarakara
44. Vidyarambham Press & Book Depot (P) Ltd., Mullakkal, Alleppey.
45. K. S. Kumara Pillai, Sreekumar Stores, Nedumangad
46. E. K. John, Stamp Vendor, c/o Popular Trading Co., Kottayam.
47. Secretary Co-operative Printing and Publishing House Ltd No. 736 (Mahatma Press) Townhall Road, Trichur.
48. P. K. Chacko Proprietor, Peekaycee Trades, Kottayam
49. Managing Director, National Book Agency (P) Ltd., Calcutta.
50. M/s Janatha Book Stall, Near PMG's Office, Trivandrum
51. The Secretary, Govt. Servant's Co-operative Society Ltd. No. A. 208, Alleppey.

NAME OF AGENTS—(Continued from outer cover)

52. Manager, St. Thomas Press, Palai.
53. The National Stores, Cannanore
54. K. Kunhambu, Bharat Printing Press, Kanhangad (P.O.), Cannanore.
55. N. Chellappan Pillai, Narayana Press & Book Stall, Attingal.
56. Koshy P. John, Vidyarthi Mithram Press & Book Depot, Kottayam.
57. Y. Habeebulla, Proprietor, New Book Centre, Near Collectorate, Qulon.
58. Vijaya Kumar Jain, Prabhu Book Service, Gurgoan, Haryana.
59. Haji Abdul Rahman Sait, Merchant, Kesavadasapuram, Trivandrum.
60. M. Balan, Manager, City Book Stall, R. S. Road, Ottappalam.
61. K. Kunjraman, Manager, Jaya Stores, Vazhuthacaud, Trivandrum.
62. P. N. Narayana Pillai, M. N. Printers, Adoor, Qulon District.
63. V. M. Noohu, Book Seller, Ansari Book Stall, Nilamel.
64. A. Narayanan Potti, Book Seller, Near Civil Station, Qulon.
65. G. Prabhakaran Nair, Manager, Premier Book House, Moovattupuzha.
66. Manager, Desabhimani Book House, M. G. Road, Trivandrum.
67. K. V. Devassy, Manager, Perinthalmanna Printing works, Perinthalmanna.
68. K. Bhaskara Pillai, Praha Book Depot, Attingal P.O.
69. K. A. George, Proprietor, Students Stores, 74/XII, Sub Jail Road, Alwaye
70. V. K. N. Pillai, Polayil Veedu, Manayikulangara, Qulon-12.
71. V. Gopinathan Nair, Book Seller, Kacheri Junction, Nedumangad.
72. A. Poornambal, Proprietor, Bhagya Enterprises, M. G. Road, Trivandrum
73. M. C. Cheriyan, M. C. C. Book Depot, Chengannur.
74. M/s Radha Stores, Shoranur.
75. A. T. A. Mustafa, Mustafa Book Company, P. O. Payangad.
76. S. M. C. Babu, Babu Brothers Book Depot, R. S. Junction, Alwaye.
77. P. C. Cherian, St. Mary's Press & Book Depot, Changanacherry.
78. K. J. Cheriyan, Manager, Victory Book House, Muvattupuzha.
79. R. Radhakrishnan Nair, Proprietor, Modern Books, Near Boat Jetty Road, Qulon.
80. Smt. K. Thankamma, M/s M. G. Book Stall, Kottayam.
81. M. A. Joseph, Proprietor, House of Knowledge Publishers & Book Sellers, Round South, Trichur.
82. V. Krishna Iyer, Retired R.T.O. T.C. 18/201, Valia Chalai, Trivandrum.
83. M/s New Ladies Fancy Centre, Mannarghat, Trichur District.
84. T. V. Thomas Panicker, Indu Book Depot, Angamali P. O., Ernakulam District.
85. M. M. Varghese, Proprietor, Book Centre, West Nada, Guruvayoor.
86. K. J. Raphael, Santha Book Stall, G. B. Road, Sultanpet, Palghat.
87. M/s Ashoka Book Agency, 2/27, Roopnagar, Delhi.
88. M/s St. Joseph's Book Stall, Convent Square, Alleppey.
89. N. Sadanandan, Proprietor, Sadananda Printers, Publishers & Book Sellers, P. O. Alathur, Palghat.
90. K. R. Sukumaran Nair, Sukumar Book Stall, T. C. 23/652, Thampanoor, Trivandrum.
91. V. G. Abraham, St. Thomas Press & Book Depot, Kozhencherry.
92. P. Aravindkshan, Book Seller, Near Post Office, Kottakkal.
93. P. Vasu, M/s P. V. Book Sellers, Stationeris & Book Binders, S. M. Street, Calicut-1.
94. George Avokaran, Manager, Janatha Stores, College Road, Trichur.
95. K. K. Ammini Amma, Monarch Book Centre, 15/1181, Vazhuthacaud, Trivandrum.
96. P. R. Dilipkumar, Asok Trades, Market Junction, Kottarakara.
97. R. Viswanathan, Viswanatha Stores, P. O. Chelakara, Trichur District.
98. M/s Vijnan Bhavan Book Stall, Publishers & Book Sellers, Kayamkulam, Alleppey.
99. N. Krishnan Nair, Edupadiokkal Puthen Veedu, Kattakada P. O., Neyyattinkara Taluk.

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100. K. Mohanan, Proprietor, S.N.V. Press & Book Depot, Kottarakkara
101. M/s Students Centre, Ottapalam.
102. T. G. Jacob, Pavoov House, Inchavila, Perinad, Quilon.
103. K. Ali, Ali Stores, Badagara.
104. C. Parani eswarar Nair, Ceepees Books & Periodicals, Kaithamukku, Trivandrum
105. K. C. Balan Nair, Book Centre, Opp. B.E.M.P. High School, Tellicherry-1.
106. P. Mahadevan Pillai, M. S. Book Depot, Main Road, Quilon.
107. N. G. Raveendranathan Nair, Aradhana Book Centre, A. M. Road, Perumbavoor
108. M. Subhain, Students Stores, Book Seller, Kesavadasapuram, Trivandrum
109. M/s Jyothu Book Centre, Round West, Trichur.
110. M. P. Rajendran, M/s Gift House, Convent Road, Badagara.
111. A. P. Thankappan Nair, New College Book Stall, Book Sellers-Moovattupuzha
112. P. Hamza, Premier Book Stall, Up-hill, Opp. Government Hospital, Manjeri Road, Malappuram
113. P. R. Rajasekharan, Sree Lakshmy Vilasom Book Depot, Broadway, Ernakulam.
114. K. T. Varkey, Sam Agencies, Ponkunnam.
115. R. Radhakrishna Pillai, Kallidukkil Veedu, Chadayamangalam.
116. K. Vasu Pillai, Mailfloor Mani Mandiram, Kanjuracode, Kundara, Quilon District.
117. N. Bhoothalingam Pillai, Swamy Book Centre, Opp. Ayurveda College, Trivandrum.
118. V. Ramakrishna Pillai, Proprietor, Raja Stores, Karunagappally.
119. N. E. Balakesavan, Modern Book Centre, T. C. 26/1599, G. P. O. Junction, Trivandrum.
120. Proprietor, Book Stall, S. M. Street, Calicut.
121. R. Velappan Pillai, Proprietor, Santha Book Depot, C. C. S. B. Road, Alleppey.
122. A. Narayanan Nair, Retired Deputy Secretary to Government, Block-I, (Upstairs), Santhnagar, Trivandrum.
123. S. Parameswaran Namboothiri, Saradhi Book Dealers, Kottayam.
124. M/s Parishat Book Stall, Court Road, Manjeri.
125. M. M. Job, Book Centre, Ottappalam
126. M/s General Papers, Paper, Books & Stationery, Court Road, Perinthalmanna
127. K. A. Mathew, S. H. Book Stall, Pandalam.
128. M/s Guru Book Stall, Palayam Road, Calicut.
129. M/s Sahitya Pravarthaka Co-operative Society, Proprietor of National Book Stall, Kottayam.
130. A. Sreedharan, Kottuvallil Veetil, Cheravaily Muri, Kayamkulam.
131. Elamma Joseph, Proprietor, Priya Stores, Thodupuzha
132. T. Kanaran, Santha Stores, Court Road, Tellicherry.
133. K. Thiruvikraman Warriar, National Book Stall, Kayamkulam.
134. V. Ayyappan Nair, Devi Book Stall, Kattakada, Trivandrum.
135. Executive, Secretary, Kerala Cardamom Growers Union, Guri Bhavan, Vandanmettu, Idukki.
136. Papees Book Stall, Edodi, Badagara, Calicut
137. V. Sankarankutty Menon, S. M. Book Stall, Irinjalakuda.
138. Royal Agency, Camp Bazar, Cannanore.
139. P. H. Syed Muhammed, Janatha Book Stall, opposite K.S.R.T.C. Changanacherry

NAME OF AGENTS—(Continued from inner cover)

140. K. A. Indira Devi, Book Centre, Y.M.C.A. Road, Kottayam.
141. K. R. Muralleedharan, Chandra Press & Book Depot, Haripad.
142. N. Kumaran, Proprietor, Kumar Printers, Ottappalam.
143. N. Elsy, Proprietor, Pitmans Commercial Institute, Sasthamangalam, Trivandrum.
144. M. J. Ponnumma, Book Seller, Krishna Mandiram, Kappil, Mekku, Kayamkulam.
145. V. N. Gopinathan, Ayithara Puthen Veedu, Vennyoor, Trivandrum.
146. Manager, Deshabhimani Book House, K.S.R.T.C. Bus Station, Alleppey.
147. T. Muhammed Husan, Vadakkē Panayullathil Parambil Thuruval, Ezhamkulam, Quilon.
148. M. K. Sumathy, Proprietor, Wynad Book House, Down Bazar, Manantoddy.
149. G. Velappan, Aeyus Books, College Road, Pathanapuram.
150. R. Krishnan, Nair, Malaya Printing Works & Books Stall, Attingal.
151. P. Bhramhanayakom Pillai, Jayashri Stores, Nedamangad, Trivandrum.
152. K. K. Pavithran, Rekha Stationery, Books & Pen Dealers, Court Road, Tellicherry.
153. N. X. Varghese, Law Book Sellers, Kadavantra, Cochin.
154. V. Mohammed Ali, Amira Book Stall, Manjeri.
155. K. Pazhanimala, Students Corner, Alathur, Palghat.
156. K. Lalitha, Bharat Publications, Ottappalam.
157. James Lukose, Cherupushpam Book Depot, Palai.
158. M. S. Gopalan, M/s. B.B.S., Books, Kottayam.
159. Thomas Muthew, Aby Nivas, Service Bureau Book Stall, P. B. No. 2, Kumarakom P O., Kottayam District.
160. N. V. Yagna Raman, Proprietor, Swamy Law House, Dwaraswamy Iyer Road, Ernakulam.
161. Alex Abraham, A. One Book House, Kottayam.
162. E. K. Sadasivan Sastry, Students Book Centre, Shertallai.
163. Vidhyarambham Publishers, Mullakkal, Alleppey.
164. H. Subrahmanian, Santhosh Book House, Trivandrum.
165. M. I. Itty, Aroma Book Stall, Mavelikara.
166. Radhakrishnan, R., Proprietor, Rehna Book House, Oachira.
167. R. Indira Bai, Proprietor, Puslhakasala, Alleppey.
168. Abraham Varghese, S. V. Press and Book Depot, Changanacherry.
169. P. K. Madhavan Nair, Books and Periodicals, Trivandrum.
170. Smt. Girija Muthukrishnan, Proprietor, S. T. Reddiar and Sons (Quilon), Main Road, Quilon.
171. Philip K Joseph, Proprietor, Text Books, Thattarambalam, Mavelikkara.
172. P. Viswanathan, Proprietor, Indira Press 13/88, Palayam, Calicut.
173. K. V. Johnson, Managing Partner, Law Books Centre, Banerji Road, Cochin.
174. K. P. Vijay Kumar, Proprietor, Anitha Publications, College Road, Sasthamcotta.
175. Perathodu Antony, Giriprabha Book House, Idukki.
176. Smt. N. Sathi Managing Partner, Bobby Book Centre, Kuthuparamba, Cannanore.
177. N. V. Mohammed Abdul Rahman, Proprietor, Mathrubhoemi Book Stall, Malappuram.
178. Smt. Soosamma K., Proprietor, Vidya Printers, Haripad, Alleppey.
179. C. M. Sethumadhavan, Proprietor, Sreedevi Enterprises, Manjeri, Ernad, Malappuram.
180. R. Prabhakaran Nair, Managing Partner, Prabath Enterprises, Pathanamthitta.
181. R. Sreemvasan, Proprietor, S.T.R. Book Depot, Near Iron Bridge, Thiruvananthapuram.
182. V. Rajan, Proprietor, Modern Book Stall, Trichur.