Subjects of study and curriculum outline:
The subjects of study shall be in accordance with the syllabus prescribed from time to time, both in theory and practical.

Examinations:
Under the scheme of examination, the board examinations for all subjects in every semester will be conducted at the end of each semester.

The internal assessment marks for all the subjects will be awarded on the basis of continuous internal assessment earned during the semester concerned. For each subject, 25 marks are allotted for internal assessment and 75 marks are allotted for the board examination.

Continuous internal assessment:
A. For theory subjects:
The internal assessment for a total of 25 marks, are to be distributed as follows:
(i) Subject attendance: 5 marks
(Award of marks for subject attendance to each subject theory/practical will as per the range given below)
80% - 83% - 1 mark
84% - 87% - 2 marks
88% - 91% - 3 marks
92% - 95% - 4 marks
96% - 100% - 5 marks
(ii) Test I & II: **10 marks**
2 tests, each one for 5 marks, conducted for 2 hours for a total of 50 marks. Out of which the best one to be taken and the marks reduced to 5 marks

Test – III is to be the model test covering all the five units and the marks so obtained will be reduced to 5 marks

Total 10 marks

TEST	UNITS	WHEN TO CONDUCT	MARKS	DURATION
Test - I	Unit – I & II	End of 6thweek	50	2 Hrs
Test - II	Unit – III & IV	End of 12thweek	50	2 Hrs
Test - III	**Model Examination** - **Compulsory** Covering all the 5 Units. (Board examination-question paper-pattern).	End of 15th week	75	3 Hrs

Question paper pattern for the periodical test: (Test - I & Test- II)
With no choice:

PART A: 4 Questions X 2 mark …	… 8 marks
PART B: 4 Questions X 3 marks …	… 12 marks
PART C: 3 Questions X 10 marks …	… 30 marks

	Total 50 marks

(iii) Assignment: 10 marks

For each subject, three assignments are to be given each carrying 20 marks and the average marks scored should be reduced to 10 marks

On getting the signature with date from the students, all test papers and assignment notebooks must be kept in the safe custody of the department for verification and audit. It should be preserved for two semesters and produced to the flying squad and the inspection team at the time of inspection/verification.

B. For Practical Subjects:

The internal assessment for a total of 25 marks are to be distributed as follows:

a) Attendance : 5 marks (Award of marks same as theory subjects)
b) Procedure/ observation and tabulation/ other practical related work : 10 marks
c) Record writing : 10 marks

TOTAL: **25 marks**

- All the experiments/exercises indicated in the syllabus should be completed and given for final board examinations.
- The record for every completed exercise should be submitted in the subsequent practical classes and marks should be awarded out of 20 for each exercise as per the above allocation.
- At the end of the semester, the average marks of all the exercises should be calculated for 20 marks and the marks awarded for attendance is to be added to arrive at the internal assessment mark for practical. (20+5=25 marks)
- The students have to submit the duly signed bonafide record note book/file during the practical board examinations.
- All the marks awarded for assignments, tests and attendance should be entered in the personal log book of the staff handling the subject. This is applicable to both theory and practical subjects.

Life and Employability Skill Practical:

The Life and Employability Skill Practical is being introduced in semester IV for circuit branches and in semester V for other branches of engineering. Emphasis is given to increase the employability of the students:

Internal assessment mark ….. **25 marks**

Project work:

The students of all the diploma programmes **(except Diploma in Modern Office Practice)** have to do a project work as part of the curriculum and in partial fulfillment for the award of diploma by the State Board of Technical Education and Training, Tamil Nadu.

In order to encourage students to do worthwhile and innovative projects, every year prizes are awarded to the three best projects i.e. institution wise, region wise and state wise. **The project work must be reviewed twice in the same semester.**

a) Internal assessment marks for project work &viva voce:

Project Review **I … 10 marks**
Project Review **II … 10 marks**
Attendance **… 05 marks** (award of marks as per the same pattern as theory subjects)

Total … **25 marks**

Proper record to be maintained for the two project reviews, and it should be preserved for two semesters and produced to the flying squad and the inspection team at the time of inspection/verification.

b) Allocation of mark for project work &viva voce in board examination:

Viva voce …	… 30 **marks**
Marks for report preparation, demo	… 35 **marks**

	Total **65 marks**
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c) Written test mark (from two topics for a duration of 30 minutes): 10 marks

(i) Environment Management: 2 questions X 2½ marks	=**5 marks**
(ii) Disaster Management: 2 questions X 2 ½ marks	= **5 marks**

	10marks

Selection of questions should be from question bank, by the external examiner. Choices are not given to the candidates.

Project work &viva voce in board examination		**65 marks**
Written test mark (from two topics for a duration of 30 minutes)		**10 marks**
	TOTAL	**75 marks**

Criteria for passing the course:

1. No candidate shall be eligible for the award of a diploma unless he/she has undergone the prescribed course of study successfully in an institution approved by the AICTE and affiliated to the State Board of Technical Education & Training, Tamil Nadu and passed all the subjects prescribed in the curriculum.
2. A candidate shall be declared to have passed the examination in a subject if he/she secures not less than *40% in theory subjects and 50% in practical subject out of the total prescribed maximum marks including both the internal assessment and the board examination marks put together, subject to the condition that he/she secures at least a minimum of 30 marks out of 75 marks in the board theory examinations and a minimum of 35 marks out of 75 marks in the board practical examinations.*

Classification of successful candidates:

Classification of candidates who will pass the final examinations from April 2018 onwards (joined first year in 2015-2016) will be done as specified below.

First Class with Superlative Distinction:

A candidate will be declared to have passed in **First Class with Superlative Distinction** if he/she secures not less than 75% of marks in all the subjects and passes all the semesters in the first appearance itself and passes all subjects within the stipulated period of study 3/ 3½/ 4 years (Full Time/Sandwich/Part Time) without any break in study.

First Class with Distinction:

A candidate will be declared to have passed in **First Class with Distinction** if he/she secures not less than 75% of the aggregate of marks in all the semesters put together and passes all the semesters except the I and II semesters in the first appearance itself and passes all the subjects within the stipulated period of study 3/ 3½/ 4 years (Full Time / Sandwich / Part Time) without any break in study.

First Class:

A candidate will be declared to have passed in **First Class** if he/she secures not less than 60% of the aggregate marks in all semesters put together and passes all the subjects within the stipulated period of study 3/ 3½ / 4 years (Full Time / Sandwich / Part Time) without any break in study.

Second Class:
All other successful candidates will be declared to have passed in **Second Class**.

The above mentioned classifications are also applicable for the Sandwich / Part-Time students who passed the final examination from October 2018 /April 2019 onwards (both joined the first year in 2015-2016)

Duration of a period in the class time table:
The duration of each period of instruction is one hour and the total period of instruction hours excluding interval and lunch break in a day should be uniformly maintained as 7 hours corresponding to 7 periods of instruction (theory & practical).

Seminar:
A total of 15 hours (15 weeks x 1hour) should be distributed equally among all the theory subjects per semester (ie 15 hours divided by 3/4 subject). A topic from the subject or current scenario is given to the students. During the seminar hour, students have to present a paper and submit seminar material to the staff member who is handling the subject. It should be preserved for two semesters and produced to the flying squad and the inspection team at the time of inspection/verification.

The Scheme of examinations for subjects:

First semester

		Hours Per Week	**Exam Duration In Hours**	**Record / Internal Mark**	**Exam Mark**	**Total**	**Passing Mark**
31031		6	3	25	75	100	40
31032		5	3	25	75	100	40
31033		5	3	25	75	100	40
31034		5	3	25	75	100	40
31035		3	3	25	75	100	50
31036		6	3	25	75	100	50
30001		4	3	25	75	100	50
Seminar		1					

Second semester

		Hours Per Week	Exam Duration In Hours	Record / Internal Mark	Exam Mark	Total	Passing Mark
31031		6	3	25	75	100	40
31032		5	3	25	75	100	40
31033		5	3	25	75	100	40
31034		5	3	25	75	100	40
31035		3	3	25	75	100	50
31036		6	3	25	75	100	50
30001		4	3	25	75	100	50
Seminar		1					

1010 – DIPLOMA IN CIVIL ENGINEERING FULL TIME

Third semester

Subject Code	Subject	Hours Per Week	Exam Duration In Hours	Record / Internal Mark	Exam Mark	Total	Passing Mark
31031	Engineering Mechanics	6	3	25	75	100	40
31032	Construction Materials and Construction Practice	5	3	25	75	100	40
31033	Surveying I	5	3	25	75	100	40
31034	Civil Engineering Drawing I	5	3	25	75	100	40
31035	Material Testing Lab I	3	3	25	75	100	50
31036	Surveying Practice I	6	3	25	75	100	50
30001	Computer Application Practical	4					
Seminar		1					

Fourth semester

Subject Code	Subject	Hours Per Week	Exam Duration In Hours	Record / Internal Mark	Exam Mark	Total	Passing Mark
31041	Theory of Structures	6	3	25	75	100	40
31042	Transportation Engineering	5	3	25	75	100	40
31043	Surveying II	5	3	25	75	100	40
31044	Estimating and Costing I	5	3	25	75	100	40
31045	Material Testing Lab II	3	3	25	75	100	50
31046	Surveying Practice II	6	3	25	75	100	50
31047	CAD in Civil Engineering Drawing I	4	3	25	75	100	50
Seminar		1					

Fifth semester

Subject Code	Subject	Hours Per Week	Exam Duration In Hours	Record / Internal Mark	Exam Mark	Total	Passing Mark
31051	Structural Engineering	6	3	25	75	100	40
31052	Environmental Engineering and Pollution Control	5	3	25	75	100	40
31074	Elective Theory I Water Resources Management	5	3	25	75	100	40
31054	Civil Engineering Drawing II	5	3	25	75	100	50
31055	Construction Practice Lab	3	3	25	75	100	50
31056	CAD In Civil Engineering Drawing II	6	3	25	75	100	50
30002	Life and Employability Skill Practical	4	3	25	75	100	50
Seminar		1					

Sixth semester

Subject Code	Subject	Hours Per Week	Exam Duration In Hours	Record / Internal Mark	Exam Mark	Total	Passing Mark
31061	Construction Management with MIS	6	3	25	75	100	40
31062	Hydraulics	5	3	25	75	100	40
31081	Elective Theory II Town Planning	5	3	25	75	100	50
31064	Estimating and Costing II	5	3	25	75	100	50
31065	Hydraulics Lab	3	3	25	75	100	50
31066	Computer Applications In Civil Engineering Practice	6	3	25	75	100	50
31067	Project Work	4	3	25	75	100	50
Seminar		1					

Mechanical Engineering

Third semester

Subject Code	Subject	Hours Per Week	Exam Duration In Hours	Record / Internal Mark	Exam Mark	Total	Passing Mark
32031	Strength of Materials	6	3	25	75	100	40
32032	Manufacturing Processes	5	3	25	75	100	50
32033	Machine Drawing	5	3	25	75	100	50
32034	Computer Applications and CAD Practical	5	3	25	75	100	50
32035	Foundry and Welding Practical	3	3	25	75	100	50
32036	Lathe and Drilling Practical	6	3	25	75	100	50
32037	Metrology and Metallography Practical	4	3	25	75	100	50
Seminar		1					

Fourth Semester

Subject Code	Subject	Hours Per Week	Exam Duration In Hours	Record / Internal Mark	Exam Mark	Tot al	Passing Mark
32041	Heat Power Engineering	6	3	25	75	100	40
32042	Special Machines	5	3	25	75	100	40
32043	Fluid Mechanics and Fluid Power	5	3	25	75	100	40
32044	Electrical Drives and Control	5	3	25	75	100	40
32045	Strength of Materials and Fluid Mechanics Practical	3	3	25	75	100	50
32046	Special Machines Practice	5	3	25	75	100	50
32047	Electrical Drives and Control Practical	5	3	25	75	100	50
Seminar		1					

Fifth semester

Subject Code	Subject	Hours Per Week	Exam Duration In Hours	Record / Internal Mark	Exam Mark	Total	Passing Mark
32051	Design of Machine Elements	6	3	25	75	100	40
32052	Thermal and Automobile Engineering	5	3	25	75	100	40
32053	Process Planning and Cost Estimation	5	3	25	75	100	40
32073	Elective - I Theory Renewable Energy Sources and Energy Conservation	5	3	25	75	100	40
32055	Process Automation Practical	3	3	25	75	100	50
32056	Thermal and Automobile Engineering Practical	4	3	25	75	100	50
30002	Life and Employability Skills Practical	4	3	25	75	100	50
Seminar		1					

Sixth semester

Subject Code	Subject	Hours Per Week	Exam Duration In Hours	Record / Internal Mark	Exam Mark	Total	Passing Mark
32061	Industrial Engineering and Management	5	3	25	75	100	40
32062	Computer Aided Design and Manufacturing	5	3	25	75	100	40
32081	Elective - II Theory Mechanical Instrumentation	5	3	25	75	100	40
32064	Computer Aided Design and Manufacturing Practical	3	3	25	75	100	50
32065	Machine Tool Testing and Maintenance Practical	6	3	25	75	100	50
Subject Code	**Subject**	**Hours Per Week**	**Exam Duration In Hours**	**Record / Internal Mark**	**Exam Mark**	**Total**	**Passing Mark**
32084	Elective - II Practical Mechanical Instrumentation Practical	4	3	25	75	100	50
32067	Project Work	1	3	25	75	100	50
Seminar		1					

Electrical and Electronics Engineering

Third semester

Subject Code	Subject	Hours Per Week	Exam Duration In Hours	Record / Internal Mark	Exam Mark	Total	Passing Mark
33031	Electrical Circuit Theory	6	3	25	75	100	40
33032	Electrical Machines-I	5	3	25	75	100	40
34031	Electronic Devices and Circuits	5	3	25	75	100	50
33034	Electrical Circuits and Machines Practical	5	3	25	75	100	50
34034	Electronic Devices and Circuits Practical	3	3	25	75	100	50
33036	Electrical Work Shop Practical	4	3	25	75	100	50
30001	Computer Applications Practical	4	3	25	75	100	50
Seminar		1					

Fourth semester

Subject Code	Subject	Hours Per Week	Exam Duration In Hours	Record / Internal Mark	Exam Mark	Total	Passing Mark
33041	Electrical Machines – II	6	3	25	75	100	40
33042	Measurements and Instruments	5	3	25	75	100	40
34043	Digital Electronics	5	3	25	75	100	40
33044	Transducers and Signal Conditioners	5	3	25	75	100	40
33045	Electrical Machines and Instrumentation Practical	3	3	25	75	100	50
34046	Integrated Circuits Practical	4		25	75	100	50
30002	Life and Employability Skill Practical	4		25	75	100	50
Seminar		1					

Fifth semester

Subject Code	Subject	Hours Per Week	Exam Duration In Hours	Record / Internal Mark	Exam Mark	Total	Passing Mark
33051	Generation Transmission and Switchgear	6	3	25	75	100	40
34052	Micro Controller	5	3	25	75	100	40
35053	Electrical Estimation and Energy Auditing	5	3	25	75	100	40
33071	Elective Theory-I Control of Electrical Machines	5	3	25	75	100	40
33055	Computer Aided Electrical Drawing Practical	3	3	25	75	100	50
34056	Micro Controller Practical	6	3	25	75	100	50
33074	Elective Practical – I Control of Electrical Machines Practical	4	3	25	75	100	50
Seminar		1					

Sixth semester

Subject Code	Subject	Hours Per Week	Exam Duration In Hours	Record / Internal Mark	Exam Mark	Total	Passing Mark
33061	Distribution and Utilization	6	3	25	75	100	40
33062	Operation and Maintenance of Electrical Equipment	5	3	25	75	100	40
33081	Elective Theory-II Power Electronics	5	3	25	75	100	40
33064	Wiring and Winding Practical	5	3	25	75	100	50
33065	Electrical Circuits Simulation Practical	3	3	25	75	100	50
33084	Elective Practical – IIPower Electronics Practical	6	3	25	75	100	50
33067	Project Work	4	2	25	75	100	50
Seminar		1					

Textile Technology

Third semester

Subject Code	Subject	Hours Per Week	Exam Duration In Hours	Record / Internal Mark	Exam Mark	Total	Passing Mark
36031	Fibre Science and Technology	6	3	25	75	100	40
36032	Yarn Manufacture - I	5	3	25	75	100	40
36033	Fabric Manufacture - I	5	3	25	75	100	40
36034	Fibre Identification - Practical	5	3	25	75	100	50
36035	Yarn Manufacture - I Practical	3	3	25	75	100	50
36036	Fabric Manufacture - I Practical	6	3	25	75	100	50
30001	Computer Application Practical	4	3	25	75	100	50
Seminar		1					

Fourth semester

Subject Code	Subject	Hours Per Week	Exam Duration In Hours	Record / Internal Mark	Exam Mark	Total	Passing Mark
36041	Basic Engineering	6	3	25	75	100	40
36042	Yarn Manufacture – II	5	3	25	75	100	40
36043	Fabric Manufacture – II	5	3	25	75	100	40
36044	Elementary Textile Design	5	3	25	75	100	40
36045	Yarn Manufacture – II Practical	3	3	25	75	100	50
36046	Fabric Manufacture – II Practical	6	3	25	75	100	50
36047	Elementary Textile Design Practical	4	3	25	75	100	50
Seminar		1					

Fifth semester

Subject Code	Subject	Hours Per Week	Exam Duration In Hours	Record / Internal Mark	Exam Mark	Total	Passing Mark
36051	Textile Testing	6	3	25	75	100	40
36052	Textile Wet Processing	5	3	25	75	100	40
36053	Advanced Textile Design	5	3	25	75	100	40
36071	Elective I Advanced Textile Manufacture	5	3	25	75	100	40
36055	Textile Testing Practical	3	3	25	75	100	50
36056	Textile Wet Processing Practical	6	3	25	75	100	50
30002	Life and Employability Skill Practical	4	3	25	75	100	50
Seminar		1					

Sixth semester

Subject Code	Subject	Hours Per Week	Exam Duration In Hours	Record / Internal Mark	Exam Mark	Total	Passing Mark
36061	Textile Management	6	3	25	75	100	40
36062	Garment Manufacture	5	3	25	75	100	40
36081	Elective II Maintenance of Textile Machinery	5	3	25	75	100	40
36064	Garment Manufacture Practical	5	3	25	75	100	50
36065	Textile CAD Practical	3	3	25	75	100	50
36066	Garment CAD Practical	6	3	25	75	100	50
36067	Project Work	4	3	25	75	100	50
Seminar		1					

Instrumentation and Control Engineering

Third semester

Subject Code	Subject	Hours Per Week	Exam Duration In Hours	Record / Internal Mark	Exam Mark	Total	Passing Mark
34031	Electronic Devices and Circuits	6	3	25	75	100	40
34232	Electrical Circuits and Machines	5	3	25	75	100	40
34233	Basics of Instrumentation	5	3	25	75	100	40
34234	Electrical and Electronic Practical	3	3	25	75	100	50
34235	Basics of Instrumentation Practical	6	3	25	75	100	50
34236	C Programming Practical	4	3	25	75	100	50
34237	Computer Application and Simulation Practical	1	3	25	75	100	50
Seminar		1					

Fourth semester

Subject Code	Subject	Hours Per Week	Exam Duration In Hours	Record / Internal Mark	Exam Mark	Total	Passing Mark
34241	Analog and Digital Electronics	6	3	25	75	100	40
34242	Measurements and Instruments	5	3	25	75	100	40
34243	Measurement of Process Variables	5	3	25	75	100	40
34244	Industrial Instrumentation	5	3	25	75	100	40
34245	Analog and Digital Electronic Practical	3	3	25	75	100	50
34246	Measurement of Process variables Practical	4		25	75	100	50
30002	Life and Employability Skill Practical	4		25	75	100	50
Seminar		1					

Fifth semester

Subject Code	Subject	Hours Per Week	Exam Duration In Hours	Record / Internal Mark	Exam Mark	Total	Passing Mark
34251	Process Control Instrumentation	5	3	25	75	100	40
34252	Microcontroller	5	3	25	75	100	40
34253	Control Engineering	5	3	25	75	100	40
34273	Elective I Industrial Power Electronics	3	3	25	75	100	40
34255	Process Control Instrumentation Practical	6	3	25	75	100	50
34256	Microcontroller Practical	4	3	25	75	100	50
34257	LABVIEW & MATLAB Practical	1	3	25	75	100	50
Seminar		1					

Sixth semester

Subject Code	Subject	Hours Per Week	Exam Duration In Hours	Record / Internal Mark	Exam Mark	Total	Passing Mark
34062	Test Engineering	6	3	25	75	100	40
34262	Industrial Automation and Drives	5	3	25	75	100	40
34081	Elective II Bio Medical Instrumentation	5	3	25	75	100	40
34264	Industrial Automation Practical	5	3	25	75	100	50
34066	Test Engineering Practical	3	3	25	75	100	50
34266	Programmable Logic Controller Practical	6	3	25	75	100	50
34267	Project Work	4	3	25	75	100	50
Seminar		1					

The question paper pattern is common to all theory subjects unless it is specified otherwise.

PART A - (1 to 8) Five questions are to be answered out of 8 questions for 2 marks each. Question No. 8 will be the compulsory question and can be asked from any one of the units. From each unit, maximum of two questions carrying two marks can be asked.

PART B - (9 to 16) Five questions are to be answered out of 8 questions for 3 marks each. Question No. 16 will be the compulsory question and can be asked from any one of the units. From each unit, maximum of two questions carrying three marks can be asked.

PART C - (17 to 21) Five questions will be given in the 'either-or' pattern. Students have to answer these five questions. Each question carries 10 marks. Based on the discretion of the question setter, he/she can ask two five mark questions (with a sub division A & sub division B) instead of one ten mark question, if required.

Requirements to appear for examinations:

Excerpts From:

GOVERNMENT OF TAMIL NADU, DEPARTMENT OF TECHNICAL EDUCATION, DIPLOMA / POST DIPLOMA COURSES (Rules & Regulations), Board of Studies & Examinations, Hand Book

Examinations will be conducted at the end of the year for the first year subjects and at the end of each semester for semester subjects by the Board of Examinations. A candidate will be permitted to appear for the Board's Examinations, only if:

(i) he / she secures 80% attendance in the year / semester concerned
(ii) he / she earns a progress certificate from the head of the institution for satisfactorily completing the course of study as required by the regulations, and
(iii) his / her conduct was satisfactory during the course of study