

ENGINEERING AND TECHNOLOGY GROUP

ELECTRONICS TECHNOLOGY

Scheme of Examination

Std. XII

Paper	Title of the Paper	Theory		Practical		Term work	Project work	I.V. *	OJT **	Total Marks
		Marks	Time (Hrs)	Marks	Time (Hrs)					
1	Applied and Industrial Electronics	80	3	80	3	10	10	10	10	200

* IV = Industrial Visits

** OJT = On Job Training

Introduction

Electronics Technology is one of the important Higher Secondary vocational course under Engineering and Technological group introduced by the state government from the academic year 1988-1989. The state board revised syllabus as per NSQF (National Skills Qualification Framework). This policy is decided by National Skill Development Corporation (NSDC) under HRD ministry of Government of India to nurture technological advancement & Skill development for job opportunities in various Electronic sectors.

The syllabus of Electronics Technology sector has been evolved in such a way that after completion of the course of two years (Std. XI) [L3] and (Std. XII) [L4] The student would acquire good working skills suited to work as a skilled person in industry. He would also gain knowledge for electronic technician, electronics sales & service.

Objectives

On completion of the course, the student will gain.

- Knowledge of working & operating principles of electronic circuits & equipments.
- Skills for fault analysis and diagnosis of electronic equipment, repair & replacement of faulty parts.
- Skills on assembly, testing, repair, maintenance and installation of electronic equipment.
- Ability to examine schematic layouts wiring diagrams and product details.
- Knowledge of entrepreneurship activities.
- Awareness of safety precautions.

Job Opportunities

After successful completion the course the student can have opportunities in the following fields with acquiring professional skills.

- Audio & TV technician.
- Computer hardware technician.
- Electronics servicing sector.
- Electronic technician.
- Sales & service in consumer electronics.
- Service person in telecom sector.
- Entrepreneur.

Future Education

If student desires he can take admission to direct second year diploma course and also go for higher education.

Practical

Sr. No.	List of Practical's	Periods
1.	Determination of gain of Inverting amplifier.	9
2.	Determination of gain of Non-Inverting amplifier.	9
3.	Study of Op amp as Adder.	9
4.	Study of Op amp as Subtractor.	9
5.	Study of Op amp as Integrator.	9
6.	Study of Op amp as differentiator.	9
7.	Study of Op amp as Buffer.	9
8.	Study of Op amp as Comparator.	9
9.	Study of Op amp as Schmitt's Trigger.	9
10.	Study of IC 555 in Monostable mode.	9
11.	Study of IC 555 in Astable mode.	9
12.	Study of Optocoupler circuit.	9
13.	Demonstration of solar cells and solar appliances.	9
14.	Demonstration of copier Machine.	9
15.	Demonstration of scanning of document.	9
16.	Construct a circuit of speed control of DC motor.	9
17.	Construct and study FSK using IC 555.	9
18.	Study V- I characteristics of Photo Diode.	9
19.	Demonstration of infra red remote control circuit.	9
20.	Demonstration of FAX machine.	9
21.	Project, Industrial Visit, O.J.T	60
	Total	240