

ENGINEERING AND TECHNOLOGY GROUP

ELECTRONICS TECHNOLOGY

Scheme of Examination

Std. XI

Paper	Title of the Paper	Theory		Practical		Term work	Project work	I.V. *	Total Marks
		Marks	Time (Hrs)	Marks	Time (Hrs)				
1	Basic Electricity	80	3	80	3	20	10	10	200

* IV = Industrial Visits

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.	Prepare drawing sheet of electrical symbols.	9
2.	Enlist the Safety precautions to be taken in the Electronics Laboratory.	9
3.	Prepare drawing sheet of tools used in the electronics lab.	9
4.	Enlist different voltage sources in the laboratory and note their specifications.	9
5.	Prepare drawing sheet of Active and passive components.	9
6.	Familiarization and use of Ammeter, Voltmeter and Multimeter	9
7.	Verification of Ohm's Law	9
8.	Verification of Kirchhoff's Current Law.	9
9.	Verification of Kirchhoff's Voltage Law.	9
10.	Identification and testing of Passive components.	9
11.	Study of different types of Switches, relays and Connectors.	9
12.	Identification and testing of Active components.	9
13.	Identify and draw Pin Configuration of IC's 555,741, 74XX, etc.	9
14.	Prepare layout and PCB of simple circuit like bridge rectifier.	9
15.	Study charging and discharging of capacitor through resistor.	9
16.	Study of series and parallel resistive circuits.	9
17.	Demonstrate solenoid as Electro-magnet.	9
18.	Prepare chart for typical sinusoidal waves for Amplitude, frequency, time period, Peak value, Average value, RMS value.	9
19.	Study of PMMC galvanometer	9
20.	Conversion of PMMC into Ammeter	9
21.	Conversion of PMMC into Voltmeter.	9
22.	Project, Industrial Visit	51
Total		240