

## 2: ELECTRICAL TECHNOLOGY (FA, FB, FC)

### 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)					
2	Electrical Appliances	80	3	80	3	10	10	10	10	200

\* IV = Industrial Visits

\*\* OJT = On Job Training

### Electrical Appliances (FB)

#### Objectives:

To enable the students to

- 1) Understand the working principle and construction of common domestic appliances
- 2) Know the cause of faults in these appliances
- 3) Acquire skills of testing and repairs of appliances
- 4) Know the working and construction of cells of batteries
- 5) Know the students about manufacturing of different appliances.

#### Theory

Sr. No.	Unit	Sub-Unit	No. of Periods
1.	Testing Equipments & basic control equipments	Switch, fuse, line tester, electronic line tester, series test lamp for single phase, parallel test lamp for single phase, series test lamp for three phase, parallel test lamp for 3 phase, thermostat, bimetallic relay, thermocouple, overload switch, electromagnetic relay, MCB	10
2.	Electric iron	types of electric irons, ordinary, automatic, steam, spray, laundry	8
3.	Tea/ coffee maker	Electric kettle, coffee percolator, electric coffee mug/stirrer,	6
4.	Electric induction cooker	Electric induction plate cooker, simple rice maker	8
5.	Electric toaster	Ordinary, sandwich, pop up automatic	6
6.	Oven and tandoor	Oven, tandoor maker, Micro wave oven	6
7.	Water purifier	UV/RO, UV light effect on bacteria, reverses osmosis membrane process.	8

8.	Rectifiers and filter ckt	Rectifier, P type N type, Half wave, full wave, bridge rectifier	8
9.	Filter ckts and voltage regulator	Filter ckt, T-L, Pie types, voltage regulator IC	8
10.	Emergency Torch	Miniature lamp type, Farmers torch	8
11.	Battery charger	Battery charger ckt and different components	8
12.	Water boilers and geysers	Types of water boilers and geysers, corner, vertical, horizontal, market survey	12
13.	Cells & batteries	Types of secondary cells, cell in series and parallel, lead acid battery,	16
14.	Project	Project of above appliances	8
<b>Total</b>			<b>120</b>