

# Solapur University, Solapur.

## Skill Development Center

Name of course: **Certificate course in Maintenance and Repairing of domestic electric and electronic appliances**

**Curriculum of Certificate Course in Maintenance and Repairing of domestic electric and electronic appliances:**

Medium of the Course : English  
Duration of the Certificate Course : 6 Months  
Eligibility : Undergraduate appeared student

Project to be submitted at the end of Course.

Examination Pattern : Annual Examination Pattern  
Theory Paper (Duration -2 hrs) : 50 Marks  
Practical (Duration – 3hrs) : 30 Marks

Oral and Project : 20 Marks

Theory & Practical Examination will be held at the end of academic year and certificate will be issued by the affiliating University.

## Syllabus

<b>Theory Paper :- 7 credits</b>	
Chapter 1	<b>Introduction of Electricity</b> Safety rule, types of testing, types of wire and capacity, Earthing, (Types of advantages and testing) Fuses, (Types, current capacity, use advantages)
Chapter 2	<b>Temperature (Heat equipments)</b> Mechanism, working, uses and repairs of 1) Iron 2) Automatic Iron 3) Geyser 4) Toaster.
Chapter 3	<b>Mechanism, working, uses and repairs of following equipments</b> 1) Bell 2) Ceiling fans 3) Table fans 4) Hair dryer 5) Tube light 6) Mixer 7) Air cooler 8) Emergency light 9) Fridge Etc.
Chapter 4	a) <b>Bell:-</b> Study of different parts , b) <b>Fan:-</b> i) Study of mechanism assembly of ceiling and Table fan. ii) Rectangular switches and fan connection. iii) Testing of capacitor and replacement. c) <b>Hair dryer:-</b> i) Study assembly and repairs. d) <b>Tube light:-</b> i) Study of checking of different parts ii) Assembly and test. e) <b>Mixer :-</b> i) Study of different parts ii) Assembly , iii) Fault finding, repairing and testing.

	<p><b>f) Air cooler :-</b>  i) Assembly  ii) Fault finding repairing and testing.</p> <p><b>g) Emergency light:-</b>  i) Assembly  ii) Study of different parts and circuit diagram's) fault finding</p>
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### **Practical's : - 5 Credits**

Chapter 1	<ol style="list-style-type: none"> <li>1. Prepare a test lamp and testing</li> <li>2. Wire continuity testing and connection according to colour coding.</li> <li>3. Actual earthing making and testing.</li> <li>4. Replacement of fuse.</li> </ol>
Chapter 2	<p><b><u>Electric Iron.</u></b>  a) Study f electric Iron and automatic iron  b) Replacement of automatic iron(Thermostat repairing)  1. <b><u>Instant and Storage type Gyser.</u></b>  Study of circuit diagram, fault finding and repairs, fitting and testing.  2. <b><u>Toaster</u></b>  Study of different parts, repairing.  3. <b><u>Refrigerator</u></b>  Connection and testing, Study of thermostat, study of compressor and connection, fault finding, repairing and testing.</p>

### **Field work and project: 8 Credits**

#### **Reference Books**

1. Instrumentation	Cooper
2. Instrumentation	Sahani
3. Basic electrical engineering	M.L.Anwani
4. Basic electrical engineering Vol.I,II,III,IV.	p.p.Shah
5. Basic electrical engineering Vol.I,II,III,IV.	B.I.Theraja
6. Electrical Mechanics	V.K.Mehta

#### **Curriculum skill**

1. Supply testing	12.Over oiling
2.wire wittingly testing	13.Regulator connection
3.Circuit diagram	14.Repairs of tube light
4.Earthing checking	15.Mixer-connection testing
5.Fuse capacity checking	16.Battery testing
6.wire capacity checking	17.Make earthing facility
7.Terminal checking	18.Pump-fault finding and repairs.
8.Fault finding and equipment	19.Fan-repairs
9.Name plate reading	20.Air-cooler repairs
10.Electric Iron Assembly and disassembly	21.Bell connection
11.Thermosstat connection	22.Termination.

## List of Books

1	Do it yourself	Readers digest publication
2	Study of electrical Domestic Appliances	K.B.Bhatia
3	Electrical wiring estimating and costing	S.L.Uppal
4	Electrical Appliances	I.M.Anwani
5	Electrical motor rewinding and repair	M.L.Anwani
6	Basic electrical engineering (Marathi)	P.P.Shah
7	Vidyut shastra (Marathi)	Sham pitke
8	Domestic appliances (Marathi)	P.P.Shah
9	Indian electric rules	Nausheer Bharucha D.B.Taraporewala Sons and co.Bombay
10	Vidyut shastra Vol.I,II,III.IV.	P.P.Shah
11	Material and workshop practical XI and XII Domestic appliances	Shri Bansode

**Question Paper Nature**

**Certificate course in Maintenance and Repairing of domestic electric and electronic appliances**

**Time: 2 hr**

**Total Marks: 50**

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- Q. 1. Choose the **most correct** alternative for the following and rewrite the sentence. 10  
1) -----  
a)                      b)                      c)                      d)
- 2)  
3)  
4)  
5)  
6)  
7)  
8)  
9)  
10)
- Q. 2. Answer **any five** of the followings. 10  
i)  
ii)  
iii)  
iv)  
v)  
vi)
- Q. 3. A) Answer **any two** of the followings. 08  
i)  
ii)  
iii)
- Q. 4. Answer **any two** of the following. 10  
i)  
ii)  
iii)
- Q. 5. Write short note/problem/solve **any two** of the following. 12  
i)  
ii)  
iii)