

Course code	Course Title	C	H	I	E	T
17U1PSM1	Physics of electrical appliances	2	2	25	75	100

Unit 1 Safety measures

Safety practice – First aid – Fire extinguishers – Neutral and earth conductor – Fuses and circuit breakers.

Unit 2 Batteries

Primary cells – Voltaic cell – Lechlanche cell – alkaline cell – mercury cell – silver oxide cell – lithium cell – secondary cell – lead– acid battery – nickel– iron battery.

Unit 3 Magnetic circuits and capacitors

Inductors, types and applications – Magnetic circuits – Electric bell – Mobile crane – Capacitors, types and applications

Unit 4 Heating appliances

Joule’s heating law – Electric heater – Non automatic iron box – Thermostat – Bimetal thermostat – Adjustable thermostat – Automatic iron box.

Unit 5 Electrical lamps

Filament lamp – Fluorescent lamp – Low voltage lamps – Instant start fluorescent lamp – Low voltage bulbs – LED halogen lamp – Mercury and sodium vapour lamps.

Text Book(s):

1. Electrician 1st year Trade Theory, 2nd edition, 2005, Central Instructional Media Institute, Chennai.
Unit 1: Pages 6–18, 37–38, 71–72.
Unit 2: Pages 74–76, 79–83.
Unit 3: Pages 98–102, 94–97, 114–117.
Unit 4: Pages 58, 269–278.
Unit 5: Pages 283–287, 291, 293–298.

References:

1. www.howstuffworks.com