2024

Skill Enhancement Course BASIC SKILLS ON ELECTRONIC

Time: 1 Hour 30 Minutes

Full Marks: 30



(The figures in the margin indicate the full marks for the questions)

Answer the following as directed (any five): 1.

 $1 \times 5 = 5$

- a) What is pitch?
- b) Mention one use of Screw gauge.
- c) Full form of PCB is (fill up the gap).
- d) Write one use of a transistor.
- e) Why capacitor is used in electronic circuit?
- The frequency used in our domestic AC lines is ... Hz (fill up the gap).
- g) How does capacitive reactance vary with frequency?
- Answer the following as directed (any five): 2.

 $2 \times 5 = 10$

- a) Draw a circuit diagram to verify Ohms' law.
- b) How does resistance of a semiconductor change with temperature?
- c) Mention the parameters that can be measured with a multimeter.

- d) Name different types of transistor. Mention different parts of a transistor.
- e) Explain briefly the dry solder joint.
- f) Draw the series and parallel connections of resistor.
- 3. Answer the following as directed (any three): $5\times 3=15$
 - State Kirchoff's first and second law and explain their physical significance.
 - b) Design a circuit diagram for electrical switch board.
 - c) What is rectifier? Draw the circuit diagram for half-wave and full-wave rectifier.
 - d) Design a regulated power supply.
 - e) What is least count? Write a short note on different uses of slide calliper, screw gauge and spherometer.



