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ELECTRONICS

(Vocational Course)

Full Marks : 30

Time : 1 hour

The figures in the margin indicate full marks for the questions

1. Choose the correct answer : 1×8=8

(a) Single-phase motor runs on

(i) single-phase AC supply

(ii) single-phase DC supply

(b) Pipe earthing is commonly used for

(i) domestic installation

(ii) industrial installation

(iii) commercial installation

(c) In a socket outlet, third thicker terminal is used for

(i) neutral

(ii) earth

(iii) phase

(2)

- (d) Full-wave rectifier consists of
- (i) 2 diodes
 - (ii) 3 diodes
 - (iii) 4 diodes
 - (iv) 1 diode
- (e) Battery converts
- (i) chemical energy into electrical energy
 - (ii) electrical energy into chemical energy
 - (iii) thermal energy into electrical energy
- (f) The full form of LED is
- (i) light-emitting diode
 - (ii) low-emitting diode
 - (iii) light-emitting data
 - (iv) light-encounter data
- (g) Instrument transformers are used to measure
- (i) low voltage
 - (ii) low current
 - (iii) high voltage and high current
- (h) Induction cooker works on the principle of
- (i) magnetic effect
 - (ii) thermal effect
 - (iii) induction effect
 - (iv) None of the above

(3)

2. Answer the following questions in 1 word or 1 sentence each (any four) : $1 \times 4 = 4$

- (a) What is billing?
- (b) What are the types of electric bell?
- (c) What are surge arresters?
- (d) What is earthing?
- (e) What is electronic choke?
- (f) What is inverter?

3. Answer the following questions in 3 or 4 sentences each (any three) : $2 \times 3 = 6$

- (a) State the parts of electric iron.
- (b) What are step-up and step-down transformers?
- (c) What is Miniature Circuit Breaker (MCB)?
- (d) What are primary cell and secondary cell?
- (e) State the types of wires.

4. Answer the following questions in 60–80 words each (any three) : $4 \times 3 = 12$

- (a) What is meant by estimate? Explain the various elements of estimate.
- (b) Explain the working principle of solar cell.

(4)

- (c) Explain the basic parts of regulated DC power supply. Draw the block diagram of regulated DC power supply.
- (d) State the working principle of autotransformer.
- (e) State the working principle of tube light set.

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