Total No. of Printed Pages—4

25/VC/EL

2025

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) A motor is a device which converts

(i) mechanical energy into electrical energy

(ii) electrical energy into mechanical energy

(iii) mechanical energy into chemical energy

(b) The speed of motor is measured in

(i) RPS (revolution per second)

(ii) RPH (revolution per hour)

(iii) RPM (revolution per minute)

(c) Fuse rating is equal to

(i) 125% of operating current

(ii) 125% of operating voltage

(iii) 100% of operating current

(d) The area where the power of magnet exists is known as

(i) electric field

(ii) mechanical field

(iii) magnetic field

(e) Combination of magnetic field and electric force is called

(i) Lenz law

(ii) vector law

(iii) Lorentz force

(f) Never operate electrical equipment while you are standing in

(i) table

(ii) ground

(iii) water

(g) Magnetic field lines always make

(i) open loops

(ii) closed loops

(iii) None of the above

(h) _____ discovered law of induction in 1830.

(i) Isaac Newton

(ii) Marie Curie

(iii) Michael Faraday

2. Answer the following questions in *1* word or in *1* sentence each (any *four*) : 1×4=4

(a) What is juicer?

(b) What is hazard?

(c) What is microwave oven?

(d) What will happen if many devices are plugged in a circuit?

(e) What is a fuse?

(f) List three ways with which the heat is transferred into surrounding.

3. Answer the following questions in *3* or *4* sentences each (any *three*) : 2×3=6

(a) What are the advantages of a circuit breaker over a fuse?

(b) What is fire extinguisher and what are its types?

(c) What are the uses or applications of electrical motor?

(d) What are the steps to be followed when the mixer/ grinder stops due to OLP trip?

(e) What are the preventions of electrical hazard?

4. Answer the following essay-type questions (any *three*) : 4×3=12

(a) Explain the working of different parts of microwave oven.

(b) Describe the following cleaning procedures of a juicer/mixer/grinder :

(i) Cleaning the blades

(ii) Cleaning the base unit

(c) Describe the working principle of an electric motor and also draw the necessary diagram.

(d) What are the common electrical hazards at your workplace that you are totally unaware of?

(e) Explain the working of microwave oven. What are the four safety measures that every household should aware regarding the proper placing of microwave oven?

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