

S. B. Roll. No.....

ELEMENTS OF ELECTRICAL & ELECTRONICS ENGINEERING
3rd Exam/Mech./Prod/Mech. Engg.(Production). Chemical/5536/Nov'24
(For 2023 Batch)

Duration: 3Hrs.

M.Marks:50

SECTION-A

Q1. Do as directed any nine of the following.

9x1=9

- a. A material is called an _____ if it has completely filled valence band and empty conduction band.
- b. Phase wound motor is also called _____ rotor.
- c. The ratio of minimum fusing current and current rating of fuse element is known as _____
- d. The electric forces which cause the flow of electron in the circuit is called _____
- e. Capacity of battery is measured in _____
- f. In a step up transformer secondary turn are _____ than primary turn.
- g. The starting torque of capacitor start motor is _____
- h. Tapping are provided on the transformer for varying the _____ voltage.
- i. Resistance of carbon filament lamp _____ with increase of voltage supply.
- j. Fuse is always connected in _____ With the electric circuit.
- k. SI unit of power is _____
- l. Rectifier converts DC supply in to AC supply. (T/F)

SECTION-B

Q2. Attempt any five questions.

5x4=20

- i. Will current flow more easily through a thick wire or a thin wire? Explain.
- ii. Differentiate between single phase and three phase supply.
- iii. Give some advantages of earthing?
- iv. Compare A.C with D.C.
- v. Write some application of stepper motors.
- vi. Write some applications of inverter.
- vii. What is the significance of Fleming's' right hand rule and left hand rule

SECTION-C

Q3. Attempt any three questions.

3x7=21

- a. Describe the construction and working of a single phase transformer.
- b. Explain constructional features of a 3 phase induction motor.
- c. Explain various types of fuses and its applications.
- d. Explain the advantages & disadvantages of electrical energy over other type of energy.
- e. What do you mean by feeder, distributor and service main in the distribution system?

