

S.B. Roll No.....

ELEMENTS OF ELECTRICAL AND ELECTRONICS ENGINEERING
3rd Exam/Mech./Auto/0193/Jan'2022
(FOR 2018 BATCH ONWARDS)

Duration: 1.15Hrs.

M.Marks:25

SECTION-A

Q1. Attempt any three questions.

3x5=15

- i. What is the difference between AC and DC?
- ii. What are the different factors on which resistance R of the material depends?
- iii. Explain the Faraday's Law of electromagnetic Induction.
- iv. Write the advantages of 3-phase system over 1-phase system.
- v. Derive and expression for generated emf in transformer.
- vi. Write short note on plate earthing.
- vii. What is the difference between neutral wire and earth wire?

SECTION-B

Q2. Attempt any one question.

1x10=10

- a. Derive and expression of current, power when a AC voltage is passed through pure resistive circuit.
- b. Explain the working principle of constant voltage transformer with the help of diagram.
- c. Write the difference between N-type and P-type semiconductors.
- d. What is power factor? What are the causes of low power factor? What is its importance?