EE-1860

B.Tech. (Semester-II) Exam.–2015

Electrical Engineering

Time : Three Hours
Maximum Marks : **100**

Note :- Attempt questions from all the sections.

SECTION - A

(Short Answer Type Questions)

Note : Attempt **any ten** questions. Each question carry 4 marks $4 \times 10 = 40$

1. In a circuit with dc source, how does a capacitance behave in steady state.

2. Explain the meaning and significance of the power factor of a circuit.

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3. Explain Norton's theorem.

4. Explain Mesh analysis.

5. Explain super position theorem with example.

6. Explain the quality factor. How does it affect the circuit Bandwidth?

7. A balanced delta connected load of impedance 16+j12 Ω/phase is connected to a three phase 400 V supply. Find the phase current, line current, power factor.

8. Explain Hysteresis and Eddy current losses

9. Explain short circuit test in transformer.

10. State and prove the condition from maximum efficiency of a transformer.

11. Discuss the method of speed control of a dc series motor.

12. Enumerate and classify the losses in a dc shunt motor.

13. Write the advantages and disadvantages of induction motor.

14 A 3 phase, 4 pole, 60Hz induction motor runs at 1500 rpm. Determine its percentage slip.