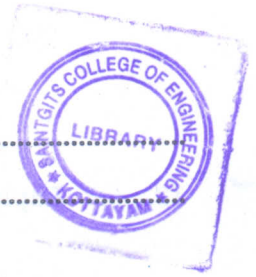


- F 3543

(Pages : 2)

Reg. No.....

Name.....



B.TECH. DEGREE EXAMINATION, NOVEMBER 2014

Eighth Semester

Branch : Electrical and Electronics Engineering

ELECTRICAL SYSTEM DESIGN (E)

(Old Scheme—Prior to 2010 Admissions—Supplementary/Mercy Chance)

Time : Three Hours

Maximum : 100 Marks

Part A

*Answer all questions.
Each question carries 4 marks.*

1. Write a note on Carter's coefficient.
2. What is armature reaction ?
3. Give the output equation of a single-phase transformer.
4. Explain the methods of heating transformers.
5. Compare water wheel and turbo alternators.
6. What are the types of winding ?
7. Draw the electrical layout 4 storey building.
8. What are the precautions to be taken during wiring of multi storey building ?
9. Discuss the factors while selecting HT and LT cables.
10. Draw plate earthing design.

(10 × 4 = 40 marks)

Part B

Each question carries 12 marks.

11. (a) Explain the design of ventilating ducts and commutators.

Or

(b) Write notes on : (i) field winding design ; (ii) slot insulation ; (iii) flux density.

12. (a) Explain the design of a distribution and division transformers.

Or

(b) Design the core yoke and windings of a single-phase 50 Hz 100 KVA, 3300/400 V shell type transformer.

Turn over

13. (a) Explain the design of a stator, rotor and damper winding.

Or

(b) Discuss the design of three-phase induction motor.

14. (a) Estimate the quantity of materials required and draw the electrical wiring layout of a residential building. (make valid assumptions).

Or

(b) Estimate the quantity of materials required and draw the electrical wiring layout of a cinema hall. (Make valid assumptions).

15. (a) Design, draw layout and estimate power supply management for an underground power supply.

Or

(b) Estimate and draw the layout of indoor outdoor 11 KV transformer station with all accessories.

(5 × 12 = 60 marks)

