

Reg. No. :

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**C 3150**

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2008.

Seventh Semester

Civil Engineering

CE 1404 — BUILDING SERVICES

(Regulation 2004)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

Explain the following :

1. Need for Fire protection in Educational Buildings.
2. Type of fire protection system.
3. Types of building services.
4. Quantification of light.
5. Super heated vapour.
6. Compressors and Evaporators.
7. Hot water boilers.
8. Concrete mixtures.
9. Distribution of main power supply.
10. Load factor.

PART B — (5 × 16 = 80 marks)

11. (a) (i) Explain various possibilities of fire hazards in current type buildings and how will you protect them from disaster.
- (ii) Explain the equipment and methods to be used for cooling buildings.

Or

- (b) (i) Explain the computing procedure for estimating electrical load in residential and commercial building.
- (ii) Explain about the protecting devices in electrical installation.

12. (a) Explain in detail different design criteria of building in saving energy.

Or

- (b) Explain lighting strategies and also explain the requirement of lighting for various activities.

13. (a) (i) Explain single phase and three phase system in electrical distribution.
- (ii) Explain in detail the generators and AC/DC motors.

Or

- (b) Explain the design aspects of features in buildings for physically handicapped and elders.

14. (a) (i) Explain the different type of artificial light sources.
- (ii) Explain water-piping system in heating building.

Or

- (b) (i) Explain the characteristics of heating gases.
- (ii) Explain the gas pipe materials and installation of Gas piping.

15. (a) (i) Explain the advantages of using copper in plumbing work.
- (ii) Explain thermal insulating materials.

Or

(b) Write brief note on :

- (i) Heat and smoke detectors. (6)
- (ii) Automatic Sprinklers. (5)
- (iii) Dry and wet risers. (5)
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