

Reg. No. :

--	--	--	--	--	--	--	--	--	--	--

R 3180

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2007.

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. What is the need for Fire protection in Educational Buildings?
2. Mention the Type of fire protection system.
3. State the Types of building services.
4. Quantification of light.
5. Name any four Acoustic materials.
6. Define Reverberation and vibration.
7. State the purpose of a Vibrator and concrete mixers.
8. State the function of a compressor in refrigeration.
9. Distribution of main power supply is very essential in building. Why?
10. What is meant by 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. (8)
- (ii) Explain the equipment and methods to be used for controlling fire in buildings. (8)

Or

- (b) (i) Explain the planning consideration in various types of building for fire safety. (8)
- (ii) Explain the concept of heat and smoke detectors. (8)
12. (a) Explain in (i) Artificial light sources (ii) Lighting classification (iii) Luminous efficiency. (16)

Or

- (b) Explain lighting strategies and also explain the requirement of lighting for various activities. (16)
13. (a) (i) Explain single phase and three phase system in electrical distribution. (8)
- (ii) Explain in detail the protective devices in electrical installation. (8)

Or

- (b) Explain (i) transformer and switch gears. (ii) BIS for wire and wiring systems. (16)
14. (a) (i) Explain the design of air conditioning for different kinds of buildings. (8)
- (ii) Explain (1) Packaged air-conditioners (2) Chilled water plant for centralized air conditioning system (3) Super heated vapour. (8)

Or

- (b) (i) Explain the characteristics of heating gases. (8)
- (ii) Explain the gas pipe materials and installation of Gas piping. (8)

15. (a) (i) Explain the advantages of using copper in plumbing work. (8)

(ii) Explain hot water boilers. (8)

Or

(b) (i) Explain DC/AC motors. (8)

(ii) How will you use strategically plan lifts and escalators for different types of buildings? (8)
