

**T 8085**

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2006.

Third Semester

Civil Engineering

CE 1203 — CONSTRUCTION TECHNIQUES, EQUIPMENT AND PRACTICES

(Common to B.E. Part-Time — Second Semester (Regulation 2005))

(Regulation 2004)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are ill effects of dampness in buildings?
2. What are the essential requirements of scaffolding?
3. What is meant by sheet piling?
4. What is a box Caisson?
5. What are slip forms?
6. What is a sky scraper?
7. State any two reasons for honey combings.
8. Distinguish between superficial cracks and structural cracks.
9. Mention any two equipments used for the erection of tall structures.
10. What is meant by dredging?

PART B — (5 × 16 = 80 marks)

11. (a) Explain various types of mortars used in stone masonry.

Or

- (b) Explain various methods of sound insulation through the wall of a hall.

12. (a) Explain the method of under water construction of diaphragm walls.

Or

(b) Explain the following :

(i) Needle scaffolding

(ii) Dead shores

(iii) Flying shores

(iv) Raking shore.

13. (a) Explain the in-situ pre-stressing technique with reference to high rise structures.

Or

(b) Explain the construction sequences in chimneys using slip form technique.

14. (a) Discuss the influence of the following in concrete with reinforcements :

(i) Moisture

(ii) Chloride ion concentration

(iii) Carbonation

(iv) Inhibitors.

Or

(b) Explain with sketch, crack detection in R.C. structures using ultrasonic non-destructive test equipment.

15. (a) Discuss the factors influencing the selection of equipment for earthwork.

Or

(b) Compare the merits and demerits of the conventional equipments used in material handling and erection of structures.