

D 4025

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2007.

Third Semester

(Regulation – 2004)

Civil Engineering

CE 1203 — CONSTRUCTION TECHNIQUES, EQUIPMENTS AND PRACTICES

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

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is a damp proof course?
2. Where is slip form used?
3. What is a caisson? When it is used?
4. Where are sheet piles provided?
5. What are off-shore platforms?
6. Sketch the super structure of bow string girder bridge.
7. Name two materials used for repairing hair-line cracks in a wall.
8. Define deterioration of a building.
9. What are the equipments used for compacting concrete in a beam?
10. Name the equipments used for dredging.

PART B — (5 × 16 = 80 marks)

11. (a) (i) Briefly explain the procedure for setting out the foundation of a building.
(ii) Compare stone masonry and brick masonry.

Or

- (b) (i) How is a construction joint provided in a building finished at the roof level? Explain with necessary sketches.
- (ii) Explain the method scaffolding adopted for plastering an exterior wall of a higher floor.
12. (a) Explain the box jacking technique for the construction of an under pass below a railway track.

Or

- (b) (i) Explain the steps involved in the construction of a cast-in-situ reinforced concrete pile.
- (ii) How is the cable of a suspension bridge anchored?
13. (a) Describe the sequence of construction of a cooling tower.

Or

- (b) Explain how is in-situ post tensioning of a structure is done. What are the precautions to be taken while carrying out the process?
14. (a) (i) What are the various causes of deterioration of a building?
- (ii) Explain how good maintenance of a building increases its life?

Or

- (b) Explain how you will strengthen the main beam of a Madras Terrace Roof. Explain in detail.
15. (a) Describe the working of pile driving equipment with a simple sketch showing the operation.

Or

- (b) Briefly explain about the following equipments :
- (i) Trenching equipment.
- (ii) Tunneling equipment.