

T 8096

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

Fifth Semester

Civil Engineering

CE 1303 — RAILWAYS, AIRPORTS, DOCKS AND HARBOURS

(Regulation 2004)

Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is coning of wheels? What are the advantages of coning of wheels?

2. What are the functions of ballast?

3. State the principles of interlocking.

4. Define turnout.

5. How much correction is to be made in the runway length for gradient?

6. What is meant by wind rose?

7. Define hangar.

8. Define taxiway.

9. Distinguish port from Harbour.

10. What is dredging?

PART B — (5 × 16 = 80 marks)

11. (a) Briefly explain the different surveys for track alignment. (16)

Or

(b) (i) Explain the super elevation giving the relationship of super elevation with gauge, speed and radius of the curve. (8)

(ii) Explain the widening of gauge on curves with the formula. (8)

12. (a) (i) Illustrate cross over with a sketch. (8)
(ii) Draw the layout of terminal station and explain. (8)

Or

- (b) Describe the operations involved in plate laying by the telescopic method. (16)

13. (a) Discuss in detail the factors affecting the choice of selection of site for an airport. (16)

Or

- (b) (i) Briefly explain the factors to be considered for the geometric design of runways? (10)

- (ii) What are the functions of airport drainage system? (6)

14. (a) (i) What are the characteristics of a good airport layout? (10)

- (ii) Briefly describe about motor vehicle parking area and its parking pattern in airports. (6)

Or

- (b) Briefly explain the Night-time aids provided at airports. (16)

15. (a) (i) What are the requirements of a good harbour? (6)

- (ii) Classify harbours on broad basis and on the basis of utility and explain them. (10)

Or

- (b) Write short notes on the following :

- (i) Pier (ii) Quay

- (iii) Dock (iv) Wharf

- (v) Breakwaters. (4 × 3 + 4 = 16)