

(DCE 423)

B. Tech. DEGREE EXAMINATION, MAY - 2015

(Examination at the end of Final Year)

CIVIL ENGINEERING

Paper - III : Transportation Engineering - II

Time : 3 Hours

Maximum Marks : 75

Answer question No. 1 compulsory

(15)

Answer ONE question from each unit

(4 x 15 = 60)

- 1) a) What is coning of wheels?
- b) What is tongue length?
- c) What is gradient compensation?
- d) List out the methods to reduce wear.
- e) What are the functions of sleepers?
- f) Define point and crossing.
- g) What is station yard?
- h) What are fish plates?
- i) List out the different imaginary surfaces.
- j) What is an apron?
- k) Write two characteristics of Air-Craft.
- l) Give the classification of obstructions.
- m) What are composite break waters?
- n) What are roaring rails?
- o) What is dry dock?

Unit - I

- 2) a) Draw a neat sketch of coning of wheels explaining the theory and advantages of coning.
b) What is Ballast? What are the functions of Ballast. Also, specify the requirements of good Ballast?

OR

- 3) a) Write a detailed note on classification of sleepers in railways.
b) Write a note on speeds on curves in case of railways.

Unit – II

- 4) a) Draw a line diagram of fixed heel type of switch explaining the function of its component parts?
b) How are railway stations classified?

OR

- 5) a) Write a note on negative super elevation.
b) What is signalling? Classify the different types of signals based on their functions.

Unit – III

- 6) a) Explain the advantages of aircraft when compared with other modes of transport.
b) Enumerate the various factors which you would keep in view while selecting the suitable site for an airport.

OR

- 7) a) Explain the different items considered in the geometric design of runways?
b) What is wind rose? Explain the two types of wind rose diagrams with sketches.

Unit – IV

- 8) a) Define dredging. Explain the reasons for its adoption. How is the dredged material disposal off?
b) What is light house? How is it constructed?

OR

- 9) a) Draw a neat sketch of harbour indicating all the components.
b) Explain with sketches various navigational aids.

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