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Register Number:

Name of the Candidate:

B.Sc. DEGREE EXAMINATION December 2014

(CONSTRUCTION MANAGEMENT)

(FOURTH SEMESTER)

430: TRANSPORTATION AND TRAFFIC MANAGEMENT

Time: Three hours

Maximum: 75 marks

Answer ALL questions

(5 × 15 = 75)

UNIT-I

1. a) Explain the necessity and objects of highway planning. (5)
b) Write notes on IRC and NHAI. (10)

(OR)

2. a) Calculate the stopping sight distance with the design speed of 100kmph for a 2way traffic roads and one way traffic roads, take the reaction time of driver as 2.5s and coefficient of friction as 0.36. (10)
b) What is the extra widening of pavements and analyse it. (5)

UNIT-II

3. a) What are the various objects and applications of spot speed studies? (7)
b) What are the different causes of accidents? Discuss briefly. (8)

(OR)

4. a) What are the advantages and disadvantages of traffic signals? (8)
b) What are the various types of traffic markings commonly used? What are the uses of each? (7)

UNIT-III

5. a) What are the various types of traffic islands used? Explain the uses of each. (7)
b) Explain the grade separated interactions the advantages and limitations. (8)

(OR)

6. a) Explain briefly the various design factors that are to be considered in rotary intersection design. (15)

UNIT-IV

7. a) Define permanent way and discuss briefly the main requirements of an ideal permanent way. (8)
b) Write notes on spikes and bearing plates. (7)
(OR)
8. a) A curve of 5" is situated on a section of B.G. The maximum permissible speed in the section is 50kmph. Find out the amount of equilibrium cant? (7)
b) Draw a neat sketch of left hand turnout and show its various parts. Explain their parts. (8)

UNIT-V

9. a) Calculate the actual length of runway for the following site conditions. (10)
Elevation = +1500m
Reference temperature = 30°C
Effective gradient = 0.30%
Basic runway length = 1900m.
b) Discuss the factors influencing the aircraft characteristics. (5)
(OR)
10. Write short notes on:
a) Airport zoning (5)
b) Wind rose diagram (5)
c) Airport lighting (5)
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