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Register Number:

Name of the Candidate:

5535

B.Sc. DEGREE EXAMINATION, 2013

(CONSTRUCTION MANAGEMENT)

(FOURTH SEMESTER)

430 : TRANSPORTATION AND TRAFFIC MANAGEMENT

December]

[Time : 3 Hours

Maximum : 75 Marks

Answer ONE question from each unit

(5 × 15 = 75)

UNIT- I

1. Work out the lengths of NH, SH, MDR, ODR and VR required in a district by Bombay road plan using the following datas.

Area of the district= 10,800 Km²

Developed and agricultural area 4100 Km²

Undeveloped area = 2300 km²

No of towns with population ranges <500, 501-1000, 1001-2000

Population range	2001-5000	5001-10000	10001-20000	20000-50000	50000-100000	>100000
No of towns and villages	120	35	20	10	6	2

are 450, 320,110 respectively.

(OR)

2. a) Draw a neat sketch of the overtaking zone and show the position of the sign.
b) Explain super elevation. What are the factors on which the design of super elevation depends?

UNIT- II

3. a) Discuss the various type of parking their advantages and disadvantages.
b) Outline the causes of accidents and suggest remedial measures for prevention.

(OR)

4. a) Explain the use of Direction Signs and Advance direction signs. Give suitable examples.
b) What are over head signs? What type of locational features warrant the use of overhead signs? Explain

UNIT- III

- 5. a) What are the types of intersection?
- b) Explain traffic islands.

(OR)

- 6. a) What are the concept of rotary and design criteria.
- b) What are the advantages and disadvantages of rotary intersection?

UNIT- IV

- 7. a) Explain the theory of coning of wheel.
- b) Discuss in detail about the types of ballast.

(OR)

- 8. a) Explain the design of diamond crossing.
- b) Explain cant and superelevation?

UNIT- V

- 9. a) What are factors affecting selection of site for airport.
- b) The length of a runway under standard condition is 1500m. The airport is to be provided at an elevation of 110m above the mean sea level. The airport reference temperature 22°C. The construction plan includes the following data.

End to end of runway (m)	0-300	300-900	900-1500	1500-1800	1800-2100
Grade (%)	+1.00	-0.20	+0.50	+1.00	-0.30

Determine the actual length of runway to be provided. Apply correction for elevation and temperature as per ICAO and for gradient as per FAA specification.

(OR)

- 10. a) Explain in detail the influence of aircraft design on runway length.
- b) Write a short notes on (1) Beacon light (2) Runway threshold lighting (3) Apron hanger lighting

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