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Roll No.....

CE - 501

B.E. V Semester

Examination, December 2014

Transportation Engineering - II

Time : Three Hours

Maximum Marks : 70

Note: i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.

ii) All parts of each question are to be attempted at one place.

iii) All questions carry equal marks, out of which part A and B (Max.50 words) carry 2 marks, part C (Max.100 words) carry 3 marks, part D (Max.400 words) carry 7 marks.

iv) Except numericals, Derivation, Design and Drawing etc.

Unit - I

1. a) Explain importance of selection of Highway Alignment.
- b) Discuss the different factors affecting Highway Alignment briefly.
- c) How Map study and Reconnaissance Survey are carried out?
- d) Derive an expression for finding superelevation on highway. <http://www.rgpvonline.com>

OR

Calculate the safe Stopping Sight Distance for design speed of 50 KMPH for

- i) Two way traffic in a two lane road.
- ii) Two way traffic in a single road friction factor is 0.4 and reaction time of driver is 2 seconds.

Unit - H

2. a) Write a note on Seal Coat.
- b) Write a note on Tack Coat.
- c) Explain briefly CBR method of Flexible Pavement design. <http://www.rgpvonline.com/>

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- c) Explain importance of Fatigue and Reliability for rigid pavement design. Discuss advantages of Rigid Pavement.

OR

Explain different types of joints provided in Rigid Pavement.

Unit -III

3. a) What is Soil Stabilization?
- b) Explain advantages of Soil Stabilization.
- c) Discuss different methods of Soil Stabilization.
- d) Explain construction of Water Bound Macadam Road step by step.

OR

Discuss different tests carried out on Bitumen.

Unit - IV

4. a) What is Wind Rose Diagram?
- b) Explain different features of Wind Rose Diagram.
- c) How Orientation of Runway is done?
- d) Discuss the different factors affecting Airport Site Selection.

OR

Explain geometrical elements of Runway.

Unit - V

5. a) What is Imaginary Surface?
- b) Discuss importance of Imaginary Surfaces.
- c) Explain different types of Imaginary Surfaces.
- d) Explain uses and different features of Runway Lighting.

OR

Write a note on :

- i) Instrumental landing system
- ii) Approach lights <http://www.rgpvonline.com>