

Roll No.

CE-501(O)

B. E. (Fifth Semester) EXAMINATION, Dec., 2009

(Old Scheme)

(Civil Engg. Branch)

TRANSPORTATION ENGINEERING – II

[CE – 501(O)]

Time : Three Hours

Maximum Marks : 100

Minimum Pass Marks : 35

Note : Total *five* questions are to be solved. Attempt *one* question from each Unit. All questions carry equal marks.

Unit – I

1. (a) Define the term 'Camber'. What are the objects of camber ? Explain the factors which affect the provision of camber. 10
- (b) Write short notes on the following : $2\frac{1}{2}$ each
 - (i) Kerb
 - (ii) Road Margin
 - (iii) Right of Way
 - (iv) Shoulder

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Or

2. (a) Describe about the highway alignment. What are the factors controlling the alignment ? 10
- (b) Design the rate of superelevation for a horizontal highway curve of radius 500 m and speed 100 kmph.

10

Unit – II

3. (a) Explain in brief about the C. B. R. method of design of flexible pavement. 12
- (b) What are the factors to be considered for the design of pavements ? 8

Or

4. (a) Describe the advantages and disadvantages of rigid pavements. 10
- (b) Discuss the methods of construction of bituminous concrete roads. 10

Unit – III

5. (a) Discuss about the principles of soil stabilization and its different methods. 10
- (b) Write short notes on the following : 5 each
- (i) Macadam Road Types
- (ii) Road Maintenance

Or

6. (a) What are the different tests to be conducted before using the Bitumen/TAR in road works ? 16
- (b) Write about rotary intersection in road. 4

Unit – IV

7. (a) State the various factors you would keep in view while selecting a suitable site for a new airport. 10

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(b) Define the following :

$2\frac{1}{2}$ each

- (i) Landing strip
- (ii) Runway
- (iii) Taxiway
- (iv) Apron

Or

8. (a) Describe the windrose diagram. 10
(b) Give the classification of various types of airports. 10

Unit – V

9. (a) Describe the methods of airways communications. 15
(b) Discuss about precision approach radar. 5

Or

10. Write short notes on the following : 7, 6, 7
- (a) VOR Enroute Traffic Control
 - (b) Zoning Regulations
 - (c) Instrumental landing System