

Total No. of Questions : 5 ] [ Total No. of Printed Pages : 3

Roll No. ..

**CE-501**

**B. E. (Fifth Semester) EXAMINATION, Dec., 2011**

**(Civil Engg. Branch)**

**TRANSPORTATION ENGINEERING – II**

**(CE – 501)**

*Time : Three Hours*

*Maximum Marks : 100*

*Minimum Pass Marks : 35*

**Note :** Attempt any five questions. All questions carry equal marks. Assume missing data suitably.

1. (a) What do you understand by "Annual Highway Cost" ?  
A cheapest road with high maintenance cost need not be best alternative. Explain. 10
- (b) Discuss the different types of road classifications as per Modified Classification of Road System (1981-2001). 10

*Or*

- (a) Write the method for providing superelevation. Discuss the role of extra widening of roads on curves. 10
- (b) What is use of horizontal curves in road alignments ? Describe in brief various features of different types of curves provided in roads. 10

P. T. O.

[ 2 ]

**CE-501**

- (a) What do you understand by C. B. R. ? Discuss its use in pavement design. 10
- (b) Discuss the advantages and disadvantages of flexible pavements. 10

*Or*

Write step by step method for design a cement concrete pavement. Assume traffic count and other soil and concrete properties suitably. 20

- (a) What do you understand by "stabilization of ground" ?  
\* Write in brief various methods of ground stabilization. 10
- (b) What do you understand by rotary design and why is rotary required ? 10

*Or*

- (a) What is the role of compaction in construction of macadam road ? 10
- (b) What is Intersection ? Describe channelised and unchannelised intersections. 10
4. (a) Explain the significance of different aircraft characteristics. 10
- (b) How the runway alignment is decided ? What is the use of windrose diagram in Airport Engineering. 10

*Or*

- (a) Discuss the various geometric standards for design of airports. 10
- (b) What is the meaning of "Airport Grading" ? Discuss in detail. 10
5. (a) Write in brief about Threshold Lighting, Runway Lighting. 10



[ 3 ]

(b) Write short notes on the following :

- (i) Air traffic control
- (ii) Instrumental landing system.

Or

(a) By drawing neat figure show various taxi way markings.

10

(b) What are the different patterns for providing boundary lighting in an airport ?

10