

CE-501(N)

B. E. (Fifth Semester) EXAMINATION, Dec, 2010

TRANSPORTATION ENGINEERING-II

unit-I

- 1 (a) How a proper abutment of highway is selected? 7 10  
(b) Classify the road pattern through neat sketches. Explain each pattern. 10 Or
2. (a) Derive an expression for finding superelevation of highway. 10  
(b) On a highway lag distance is known to be 36 m when reaction time of driver is 2 sec  
Calculate the retardation required to develop a friction factor of 0.15. The radius of curve is 130.

Unit-ii

- 3.(a) How a Rigid Pavement is designed by CBR method? 7  
(b) Explain step by step after drawing the chart used in the method. 10  
(b) Classify Rigid pavement with Flexible pavement. 10

Or

- 4.(a) Explain the importance of fatigue and reliability in rigid pavement design  
(b) Draw a neat sketch of expansion joint. Explain the function of different parts.

Unit-iii

- 5.(a) What are the requirements of Mechanical Stabilization? Discuss its advantages. 10  
(b) Name the different tests carried out on aggregate for road for quality control. Explain any two in detail. 10

Or

- 6.(a) Discuss the different types of road signs with the help of neat sketches.  
(b) Explain the various factors considered in Street Lighting. 10

unit-IV

- 7.(a) How a suitable Site of Airport is selected? 10  
(b) How runway is oriented using windrose diagram? 7 10 Or
- 8 (a) Explain the different corrections applied in Basic Runway Length giving different formulae. 10  
(b) Draw a neat cross-section of runway. Discuss the utility of different parts. 10
9. (a) Explain the different Imaginary Surfaces through a neat diagram. 10  
(b) Discuss the utility and importance of Routing Beacon and Boundary Lights. 10 Or
- 11 (a) Draw the neat diagram of Runway Lighting. Discuss the function of different parts. 10  
(b) Write a note on (i) precision approach radar (ii) instrumental landing system. 10