PVP 12

Code: CE5T5

III B.Tech - I Semester – Regular Examinations - November 2015

TRANSPORTATION ENGINEERING - I
(CIVIL ENGINEERING)

Duration: 3 hours Max. Marks: 70

Answer any FIVE questions. All questions carry equal marks

1 a) What are the significant recommendations of Jayakar committee? How this helped in road development in India? 7 M

b) What is the road classification followed in India? Explain the importance of each type of road. 7 M

2 a) Derive an expression for safe stopping sight distance when the vehicle is descending a slope. 7 M

b) Write a short note on Vertical curves. 7 M

3 a) What are the causes and preventive measures for road accidents? 7 M

b) Explain the condition and collision diagrams of an accident. 7 M

4 a) Explain the procedure for Webster's method of signal design. 7 M

b) What are the advantages and disadvantages of a traffic rotary? 7 M

5 a) Explain the Marshall Method of mix design. 7 M

b) What are the different tests conducted on aggregates? Briefly explain. 7 M

6 a) Explain the stresses in flexible pavements. 7 M

b) Discuss the Burmister's method of flexible pavement design. 7 M

7 a) Explain the critical locations of loading for wheel load stresses in Cement Concrete pavement. Explain the Westergaard's concept with assumptions. 7 M

b) Explain how the dimensions and spacing of tie bars are designed. 7 M

8 a) Briefly explain the construction procedure for gravel roads. 7 M

b) What are the differences between bituminous and cement concrete pavements? 7 M