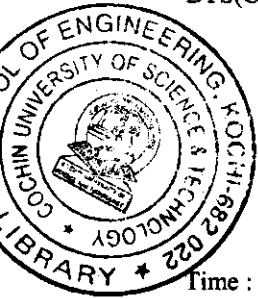


BTS(C) - V - (S) - 05 - 041 (I)



B. Tech Degree V Semester (Special Supplementary) Examination, July 2005

CE 504 (B) TRANSPORTATION ENGINEERING
(2002 Admissions)

Time : 3 Hours

Maximum Marks : 100

- I. (a) What are the factors on which the stopping sight distance depends? Explain briefly. (8)
(b) A national highway having design speed 80 Km/h passing through rolling terrain in heavy rainfall area has a horizontal curve of radius 500 m. Design the length of transition curve assuming suitable data. (12)
- OR**
- II. (a) Explain in detail, the various factors controlling the alignment of roads. (10)
(b) Calculate the safe stopping sight distance for a design speed of 50 Km/h for a two way traffic in single lane road. Assume coefficient of friction as 0.37. (10)
- III. (a) Explain the desirable properties of road aggregates. (10)
(b) What is the basic difference between a flexible and rigid pavement? Which are the factors to be considered in the design? (10)
- OR**
- IV. (a) Explain in detail about the joints in concrete pavements. (10)
(b) Explain the various tests on the suitability of the road aggregate. (10)
- V. (a) Which are the different aircraft characteristics which affect the planning and design of airports? (10)
(b) What is wind rose diagram? Explain any one type in detail. (10)
- OR**
- VI. (a) What are the various facilities provided in the airport building? (10)
(b) Explain the various markings made on the runways. (10)
- VII. (a) Explain the control of train movement by Centralized Traffic Control Systems. (10)
(b) What should be the equilibrium cant on a M.G. curve of 5° for an average speed of 60 Km/h? Also find out the maximum permissible speed after allowing the maximum cant deficiency. (10)
- OR**
- VIII. (a) Explain anyone method of tunneling through soft soil. (10)
(b) Explain briefly about tunnel ventilation and drainage. (10)
- IX. (a) Classify different types of breakwater. Briefly explain various methods of mound construction. (10)
(b) Explain in detail the classification of Harbours. (10)
- OR**
- X. (a) What is dredging? Classify different types of dredging works. (10)
(b) Briefly describe the design consideration of floating docks. Classify various types of floating docks and mention their advantages and disadvantages. (10)
