**SUBJECT CODE:- 359**
**FACULTY OF ENGINEERING AND TECHNOLOGY**
**T.E.(Civil) Examination Nov/Dec 2015**
**Transportation Engineering-I**
**(Revised)**

[Time: Three Hours]                                                                 [Max. Marks: 80]

"Please check whether you have got the right question paper."
N.B   i) Q.No.1 and Q.No.6 is compulsory.
      ii) Solve any two questions from the remaining questions from each section.
      iii) Figure to the right indicates full marks.

**Section A**

Q.1   Explain the following terms (any five )                                                          10
        i) Cofferdams        ii) Bridge Alignment        iii) Cause way        iv) Scour depth        v) Freeboard
        vi) Suspension Bridges        vii) Culvert        viii) Approaches

Q.2   a)   What are requirements of an ideal bridge?                                               08
      b)   Discuss the various considerations important for selection of suitable site for a bridge.   07

Q.3   a)   State and explain any two empirical methods for flood estimation in India.               08
      b)   Define economic span. State and explain the factors on which the overall cost of bridge depends.   07

Q.4   a)   Sketch the various types of abutments used in the construction of bridges. Describe briefly the advantages   08
           and disadvantages of each type.
      b)   What are using wall and approaches? Discuss the purpose for which these are provided. Sketch any two   07
           types of each and explain them.

Q.5   Write a note on (any three) with neat sketches.                                              15
      a)   Runway orientation
      b)   Aprons
      c)   Airport lighting and marking
      d)   Wind rose diagram
      e)   Site selection for airport

**Section-B**

Q.6          Define the following (any five)                                                       10
        i) Yard        ii) Signaling        iii) Rail joint        iv) Water column        v) Turntable
        vi) Triangle

Q.7   a)   What is meant by wear of rails? Mention the precautions to be taken to reduce wear of rails. How wear of   08
           rails are measured.
      b)   Mention different types of rails and explain their properties.                          07
Q.8   a)   Draw a neat sketch of a left hand turnout and show various parts on it.                 07
      b)   What are acute and obtuse crossing. Describe both with neat sketch.                     08

Q.9   a)   Classify the signal in accordance to the location and explain any one with neat sketch.   08
      b)   What is tilting of rail? Why it is being adopted.                                       07

Q.10  a)   State the site selection requirements of docks and harbor                               08
      b)   Differentiate between docks and harbor.                                                 07

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