



c09-c-604

**3723**

**BOARD DIPLOMA EXAMINATION, (C-09)  
OCT/NOV—2015  
DCE—SIXTH SEMESTER EXAMINATION**

**TRANSPORTATION ENGINEERING**

Time : 3 hours ]

[ Total Marks : 80

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**PART—A**

3×10=30

- Instructions** : (1) Answer **all** questions.  
(2) Each question carries **three** marks.  
(3) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.
1. Define the terms (a) gradient, (b) camber and (c) sight distance.
  2. Define (a) superelevation and (b) transition curve.
  3. State any three points that influence alignment of road.
  4. State at least four reasons why surface drainage is to be provided for roads.
  5. Show with sketches the following rail joints :
    - (a) Square joint
    - (b) Staggered joint
    - (c) Suspended joint
  6. Distinguish between the following giving sketches :
    - (a) Nose of crossing and angle of crossing
    - (b) Check rails and wing rails

- \* 7. What is plate laying operation? Name different methods of it.
8. Define bridge and culvert.
9. Mention four reasons why skew bridges are not desirable.
10. What are the functions of an abutment of a bridge?

**PART—B**

10×5=50

**Instructions :** (1) Answer *any five* questions.

(2) Each question carries **ten** marks.

(3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. Explain (a) textual classification of soil and (b) IS classification of soil.
12. (a) Draw the sketches of (i) no-parking and (ii) steep hill signals.  
(b) Explain different junctions with neat sketches.
13. Explain how the alignment of a hill road is fixed.
14. (a) Explain how the expansion and construction joints are provided in cement concrete roads.  
(b) What is meant by seal coat? Write three functions of providing it.
15. Explain the construction of a WBM road and write any two disadvantages.
16. (a) Draw a neat sketch of cross section of a permanent way, and indicate the parts.  
(b) State the advantages and disadvantages of RCC sleeper.
17. (a) Explain points and crossings.  
(b) Draw a sketch of right-hand turnout and indicate salient points.
18. (a) State the factors influencing selection of a site for a bridge.  
(b) Explain the low-level causeway with a sketch.

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