



c-16-c-404

**6427**

**BOARD DIPLOMA EXAMINATION, (C-16)  
MARCH/APRIL—2018  
DCE—FOURTH 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. Write short notes on (a) carriage way and (b) formation width.
2. Explain any three types of horizontal curve adopted in roads.
- \* 3. Mention any three objects of traffic sign.
4. State the machinery used in construction of WBM roads.
5. State any five requirements of good sleeper.
6. State any three maintenance operations carried out in daily maintenance of railways.
7. Define (a) actual nose of crossing, (b) throat of crossing and (c) angle of crossing.

8. State different <sup>\*</sup> types of culvert and causeway.
9. What are different functions of abutment?
10. Draw the longitudinal section of a pipe culvert and label the parts.

**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 the classification of roads as per IRC.
12. Define road alignment and mention any eight factors that influence the highway alignment in plain areas.
13. State and explain different types of survey to be conducted while locating a highway.
14. Explain the construction of bituminous road by (a) full-grout method and (b) semi-grout method.
15. Briefly describe various joints used in CC roads.
16. Explain different types of rail joints with neat sketches.
17. (a) Draw a neat sketch of left-hand turnout and name the parts.  
(b) Explain diamond crossing with sketch.
18. Draw a neat sketch of high level causeway and explain briefly.

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