



C16-C-404

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BOARD DIPLOMA EXAMINATION, (C-16)  
OCT/NOV—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. State the classification of roads as per IRC.
2. Write a short note on wearing course.
3. List the surveys required for fixing the alignment of a road.
4. Briefly write the purpose of highway drainage.
5. Write any three advantages of railways.
6. Draw a neat sketch of a diamond crossing.
7. Briefly write about the passenger yard.
8. State the types of culvert and causeway.

- \* 9. Sketch any three types of abutment.
10. Briefly write about approaches to 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 the functions of various components of a road structure with a neat labelled sketch.
12. What are various controlling factors that will influence the alignment of a road in plain and hilly areas?
13. (a) Name and sketch any five types of mandatory sign used to control road traffic.
- (b) Sketch cloverleaf interchange and label the parts.
14. Explain in detail the construction procedure of a bituminous penetration macadam full grout including machinery used and material required.
15. Explain in detail various types of joint used in C.C. roads.
16. (a) Mention any five characteristics of a ballast.
- (b) Mention any five requirements of an ideal sleeper.
- \* 17. Explain in detail various types of track maintenance.
18. State any ten factors influencing the selection of site of a bridge.

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