



C14-C-405

4428

BOARD DIPLOMA EXAMINATION, (C-14)  
OCT/NOV—2018  
DCE—FOURTH SEMESTER EXAMINATION  
TRANSPORTATION ENGINEERING

Time : 3 Hours]

[Total Marks : 80

PART—A

3×10=30

**Instruction :** (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. Distinguish between carriage way and right of way with the help of a neat sketch.
2. Write the importance of bearing capacity in foundations.
3. List various traffic studies generally carried out.
4. Write the requirements of a good highway drainage system.
5. Write any three functions of a railway sleeper.
- \* 6. Draw the sketch of a marshalling yard and label the components.
7. Explain Diamond crossing in railways with the help of sketch.
8. Explain the terms
  - (a) Linear water way
  - (b) Economic span
  - (c) Afflux

9. Distinguish between culvert and causeway.

10. Explain about the abutment of a bridge.

**PART—B**

10×5=50

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

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

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

11. (a) Explain Gradient and different kinds of road gradients with recommended values. 5

(b) Explain Super elevation and write how it is computed. 5

12. (a) Explain the term alignment of a road. 2

(b) Explain the different engineering surveys conducted for locating the alignment of a road. 8

13. (a) Write any five objectives of traffic engineering. 5

(b) Explain the different road junctions with neat sketch. 5

14. (a) List various methods of testing bitumen. 2

(b) Explain the procedure for construction of full grout bituminous penetration Maccadam. 8

15. Stating the necessity for joints in CC Roads and explain them with sketches.

16. Explain the following with an aid of sketches [2+2+2+2+2]

(a) Square joint

(b) Staggered joint

(c) Suspended joint

(d) Supported joint

(e) Bridge joint

17. Explain the right hand turnout with a neat sketch.
18. Explain the survey plans and documents which are to be prepared for a bridge project.

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