



c09-c-604

3723

BOARD DIPLOMA EXAMINATION, (C-09)

SEPTEMBER/OCTOBER - 2020

DCE—SIXTH SEMESTER EXAMINATION

TRANSPORTATION ENGINEERING

Time : 3 hours]

[Total Marks : 80

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 gradient and mention three types of gradients.
2. Draw the cross-section of a road showing all the components.
3. Define grade separator.
4. State three advantages of bituminous road.
5. State three functions of sleepers.
6. State three factors to be considered in selection of site for a railway station.
7. Draw the layout of wayside station—single line.

- * 8. Define (a) vertical clearance and (b) free board.
9. Distinguish between bridge and culvert.
10. State three types of wing walls.

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. (a) Define camber and state the reasons for providing camber. 2+3=5
- (b) Explain horizontal and vertical curves with figures in highways. 5
12. State the objects of traffic studies and name various traffic studies.
13. State the objects of traffic signs and explain different types of traffic signs.
14. Explain the construction procedure of bitumen bound macadam road.
15. (a) State the maintenance of WBM road.
- (b) State the machinery used in WBM road.
16. (a) State five advantages of railways.
- (b) State different types of rail joints with sketches.
- * 17. Explain various categories of yards with sketches.
18. Explain low-level and high-level causeways with sketches.
