



C14-C-405

4423

BOARD DIPLOMA EXAMINATION, (C-14)

MARCH / APRIL - 2019

DCE - IV 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) Answer should be brief and straight to the point and shall not exceed five simple sentences.

- 1 List out the physical properties of soils.
- 2 Define the terms 1+1+1
(a) Density of soil (b) Dry density of soil (c) Specific gravity of soil.
- 3 Explain how a diamond crossing is provided with a neat sketch.
- 4 What are the requirements of a good highway drainage system ?
- 5 Write any six functions of ballast.
- 6 State the purpose of (a) Marshalling yards (b) Goods yards (c) Locoyards.
- 7 Define the terms (a) Actual nose of crossing 1.5+1.5
(b) Angle of crossing.
- 8 State any three advantages of through bridge.
- 9 Distinguish between cut water and ease water.
- 10 Define the terms 1+1+1
(a) Free board (b) Highest flood level (c) Vertical clearance.

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[Contd...

PART - B**10×5=50**

- Instructions :**
- (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.

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| 11 | (a) Mention the characteristics of a good road surface. | 5+5 |
| | (b) Explain how the transition curves are useful in roads and when they have to be provided. | |
| 12 | (a) What are the different types of road junctions. | 5+5 |
| | (b) List the different types of traffic signs. | |
| 13 | (a) Define grade separation. State any three types of common inter changes. | 5+5 |
| | (b) Draw a neat sketch of a diamond crossing. | |
| 14 | State and explain the methods of providing surface drainage on highways running through (a) Urban area (b) Rural area (c) Hilly area | 4+3+3 |
| 15 | Write short notes on (a) Prime coat (b) Tack coat (c) Seal coat | 4+3+3 |
| 16 | (a) What are the three functions of rails ? | 4+3+3 |
| | (b) What are the three types of rails ? | |
| | (c) Explain the difference between three types of rails with an aid of sketches. | |
| 17 | (a) What are the points and crossings ? State their requirement. | 5+5 |
| | (b) With a neat sketch explain the layout of marshalling yard. | |
| 18 | (a) Explain with a neat sketch the suspension bridge. | 5+5 |
| | (b) Distinguish between a low level causeway and a high level causeway with the help of neat sketches. | |