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C16-C-404**6427**

BOARD DIPLOMA EXAMINATION, (C-16)
OCTOBER/NOVEMBER—2023
DCE – FOURTH 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 super elevation. State the necessity of providing super elevation in highways.
2. State different horizontal curves adopted in highways.
3. Draw the neat sketch of a diamond intersection.
4. Define the terms (a) seal coat, (b) tack coat and (c) prime coat.
5. State any three requirements of a good rail joint.
- * 6. State any three duties of a permanent way inspector.
7. Draw a neat sketch of a marshalling yard.
8. State any three factors influencing the selection of site for a bridge.
9. State different types of abutments of a bridge.
10. Differentiate between a deck bridge and a through bridge.

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PART—B

10×5=50

- Instructions :** (1) Answer *any five* questions.
(2) Each question carries **ten** marks.
(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

- 11.** Explain the components of a road cross-section with a sketch. 10
- 12.** Explain different traffic islands with neat sketches. 10
- 13.** State and explain the types of surveys to be conducted for fixing the alignment of a highway. 10
- 14.** Explain the construction of WBM roads. 10
- 15.** Explain the method of providing surface drainage in roads. 10
- 16.** (a) State any four functions of sleepers. 4
(b) State any six requirements of good ballast. 6
- 17.** Draw a neat sketch of left hand turnout and label the components. 10
- 18.** State the data required for preparation of a bridge project. 10

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