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BOARD DIPLOMA EXAMINATION, (C-14)

MARCH/APRIL—2016

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 superelevation. State the necessity of providing super-elevation.

2. Explain any three types of horizontal curves adopted in roads.

3. Sketch any three important informatory signs.

4. State the machinery used in the construction of WBM roads.

5. Draw neat sketch of a permanent way and label the components.

6. State any three maintenance operations carried out in daily maintenance of railways.

7. State any three duties of a permanent way inspector.

8. Define (a) economic span, (b) afflux and (c) scour depth.

9. State any three functions of abutment of a bridge.

10. State the formulae for (a) economical span and (b) afflux.

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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 the criterion for valuation is the content but not the length of the answer.

- 11.** Explain IS classification of soils.
- 12.** State any ten factors influencing the selection of alignment of a road.
- 13.** Explain various traffic census/traffic surveys conducted.
- 14.** Explain the construction procedure of a cement concrete road.
- 15.** Explain the construction of bituminous roads by (a) full-grout method and (b) semi-grout method.
- 16.** (a) State any five requirements of a good sleeper.
(b) State any five characteristics of a good ballast.
- 17.** Explain the Marshalling Yard and Loco Yard with neat sketches.
- 18.** Explain a low-level causeway with the help of a neat sketch.

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