

co9-c-604

# 3723

# BOARD DIPLOMA EXAMINATION, (C-09) OCT/NOV-2016 DCE-SIXTH SEMESTER EXAMINATION

## TRANSPORTATION ENGINEERING

Time: 3 hours [ Total Marks: 80

### PART—A

 $3 \times 10 = 30$ 

**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. Write briefly about textural classification of soil.
- **2.** Draw cross-section of a road structure.
- 3. Write any four types of traffic studies generally carried out.
- **4.** List out the construction steps for water bound macadam road.
- **5.** Define gauge and state classification of gauges.
- **6.** What are the main requirements of good crossing?
- **7.** Why is maintenance of track necessary?

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- 8. Define bridge and culvert.
- **9.** Write any three advantages of pre-stressed concrete bridges.
- **10.** Explain (a) economical span and (b) afflux.

#### PART—B

 $10 \times 5 = 50$ 

**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. What is a gradient? Explain different types of gradients.
- **12.** (a) What is the information that is to be collected during preliminary surveys?
  - (b) What are objects of final location surveys?
- 13. Explain about classification of intersections in highways with the help of neat sketches.
- **14.** Explain the method of construction of WBM road stating clearly the sequence of operations involved size of stones and type of roller to be used.
- 15. Explain how the drainage is provided for roads.
- **16.** (a) What are the functions of rails?
  - (b) Explain the difference between three types of rails with the aid of sketches. 4+6=10
- (a) Explain in detail how a diamond crossing is provided with a neat sketch.
  - (b) Draw a sketch of right hand turn out and indicate the salient features.
- **18.** (a) How are bridges classified?
  - (b) Define afflux and mention the reasons why afflux should be kept low while designing the water way.

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