

co9-c-604

# 3723

# BOARD DIPLOMA EXAMINATION, (C-09) OCT/NOV-2018 DCE-SIXTH SEMESTER EXAMINATION

Time: 3 hours [ Total Marks: 80

TRANSPORTATION ENGINEERING

# 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. State the classification of roads as per IRC.
- **2.** What is transition curve? State the objectives of providing transition curve.
- **3.** State any four controlling factors in an alignment of a road.
- **4.** State three reasons why surface drainage is to be provided for roads.
- **5.** Write any four functions of railway sleepers.
- **6.** Draw a neat sketch of diamond crossing.

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- **7.** Write any four factors to be considered for selection of site for a railway station.
- 8. Explain (a)economical span, and (b) afflux.
- 9. State any four advantages of through bridge.
- **10.** What are the functions of an abutment of a bridge?

## PART—B

10×5=50

**Instructions**: (1) Answer any **five** questions.

- (2) Each question carries ten marks.
- (3) The answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.
- **11.** Explain the functions of the component parts of road cross-section with a sketch.
- **12.** (a) Write any six objectives of traffic engineering.
  - (b) Mention the surveys required for fixing of alignment.
- **13.** (a) Draw the sketches of (i) No parking, and (ii) Steep hill signals.
  - (b) Explain different junctions with a neat sketch.
- **14.** (a) Explain how the drainage is provided for the roads.
  - (b) Explain different stages involved in the construction of WBM roads.
- **15.** Explain how the expansion and contraction joints are provided in cement concrete roads with sketches.

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- **16.** (a) Draw a neat sketch of cross-section of a permanent way and indicate the parts and mention the purpose of each part.
  - (b) State the advantages of RCC sleepers.
- **17.** (a) What are points and crossings? State their need.
  - (b) State the general principles of maintenance of a railway track.
- **18.** (a) What are the factors that govern the selection of ideal site for a bridge?
  - (b) Explain different types pier with sketches.

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