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BOARD DIPLOMA EXAMINATION, (C-14) MARCH/APRIL—2018 DCE—FOURTH 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.** State the important functions of I.R.C.
 - 2. Mention three kinds of road gradient.
 - **3.** Why are the traffice islands provided? Draw a neat sketch of turbine island.
 - **4.** State the purposes of providing seal coat in bituminous roads.
 - **5.** Write three advantages of flat footed rails over other rails.
 - **6.** Draw a neat sketch of 'scissors crossover'.
 - **7.** Write any three duties of P.W.I.
 - **8.** What are the constituent parts of substructure of a bridge?
 - **9.** Define (a) linear water way (b) afflux and (c) vertical clearance.
- **10.** Differentiate between 'cut waters' and 'ease waters'.

PART-B 10×5=50

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

- (2) Each questions 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 the functions of component parts of road structure with a neat sketch.
- **12.** Write any ten points that are to be kept in mind in alignment of a road.
- **13.** What are the different types of traffic signs? Explain with two examples each .
- **14.** Explain the construction of a W.B.M road and write any two advantages of it.
- **15.** (a) Briefly explain the flash point test on bitumen.
 - (b) State different machineries used in construction of bituminous roads.
- **16.** What are the characteristics of good ballast?
- **17.** Draw a neat sketch of right hand turnout and explain the salient features.
- **18.** Explain the high-level causeway with a neat sketch.

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