C14-C-405



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BOARD DIPLOMA EXAMINATION, (C-14)

OCT / NOV-2017

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. Write three objects of providing a transition curve?
- 2. Define the following (a) Consolidation (b) Compaction and (c) Permeability
- 3. What are the different types of markings on roads
- 4. State the necessity of road drainage
- 5. Draw the cross-section of Permanent way and name the parts
- 6. List any three factors to be considered for selection of site for a railway station.
- 7. What is meant by 'Gauntlet track'? Draw the fingure.
- 8. State any three assumptions that are to be made in deriving the economic span.
- **9.** Define the following terms : (a) High level bridge (b) Culvert and (c) Low level causeway.
- **10.** Distinguish between Deck bridge and Through bridge.

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[Contd...

PART - B

Instructions: (1) Answer any five questions

- (2) Each question carries **ten** marks.
- (3) Answers should be comprehensive and the criteria for valuation is the content but not the length of the answer.
- **11.** Write the administrative classification of roads as per I.R.C?
- **12.** What are the plans and documents to be prepared for a road project? Briefly explain it briefly.
- **13.** a) Draw a neat sketch of 'Diamond interchange'.
 - b) What are the points that should be borne in mind while planning and designing road junctions.
- 14. Write the construction procedure of W.B.M roads.
- **15.** a) Write any four advantages of bituminous roads over water bound macadam road.
 - b) List the tests on bitumen. Explain the test to determine consistency of bitumen.
- 16. What are the merits and demerits of concrete sleepers and steel sleepers?
- 17. Explain different types of yards with neat sketches.
- **18.** What are the factors that govern the selection of site for a bridge construction?

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