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BOARD DIPLOMA EXAMINATION
JUNE - 2019
DIPLOMA IN CIVIL ENGINEERING
TRANSPORTATION ENGINEERING
FOURTH SEMESTER EXAMINATION

Time: 3 Hours **Total Marks: 80**

PART - A (3m x 10 = 30m)

Note 1:Answer all questions and each question carries 3 marks

2:Answers should be brief and straight to the point and shall not exceed 5 simple sentences

1. State any three important functions of I.R.C
2. Define the terms (a) Ruling gradient (b) Minimum gradient
3. Distinguish clearly between Mandatory and Cautionary signs
4. What are the advantages of bituminous road over W.B.M road
5. What is meant by permanent way?
6. **Distinguish between the following with sketches**

   (a) Nose of crossing and angle of crossing.
   (b) Check rails and wing rails.
7. Distinguish between way side station and Junction
8. Define terms (i) Free board (ii) Highest flood level
9. Distinguish between wing wall and returns
10. Explain the terms Linear water way and Vertical clearance

PART - B (10m x 5 = 50m)

Note 1:Answer any five questions and each carries 10 marks

2:The answers should be comprehensive and the criteria for valuation is the content but not the length of the answer

11. (a) Define Gradient and mention the factors affecting it.

    (b) Explain why the camber of bituminous road is less than earthen road
12. Explain with neat sketches the types of traffic signs
13. State and explain the engineering surveys for highway locations

14. Explain the different stages involved in the construction of cement concrete pavement

15. (a)Explain how the W.B.M roads are maintained

(b) Explain how the surface dressing is done on existing water bound macadam road

16. **Define the term Ballast & State the functions and characteristies of good ballast.**

17. List out any Ten points for periodical maintenance of a railway track

18. **(a) Explain the masonry arch bridge with neat sketch.**

(b) What is a submersible bridge and when it will be preferred?

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