

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/  
COMMERCIAL PRACTICE, NOVEMBER - 2022**

**TRANSPORTATION ENGINEERING**

[Maximum marks: 100]

(Time: 3 Hours)

**PART – A**

**Maximum marks : 10**

I (Answer *all* the questions in one or two sentences. Each question carries 2 marks)

1. Mention the phases of engineering surveys.
2. Define road arboriculture.
3. Explain the types of gauges.
4. Sketch diamond crossing.
5. Distinguish between bridge and culvert.

(5 x 2 = 10)

**PART – B**

**Maximum marks : 30**

II (Answer any *five* of the following questions. Each question carries 6 marks)

1. Briefly explain E's in traffic management.
2. Write down the necessity of road drainage.
3. Explain the Component parts of road structure.
4. List out the functions of Sleepers.
5. Explain the Principles of interlocking.
6. Explain the types of wing walls used for bridges.
7. Explain the common cross sections used for tunnels.

(5 x 6= 30)

**PART – C**

**Maximum marks : 60**

(Answer one full question from each unit. Each full question carries 15 marks)

**UNIT –I**

III. (a) Briefly Explain the type of sight distances.

(7)

(b) Explain Islands at road junction. (Any four in detail). (8)

OR

IV. (a) Briefly explain different types of road signs. (8)

(b) Explain Clover leaf junction with a neat sketch. (7)

#### UNIT-II

V. (a) Explain Different types of gradients. (8)

(b) Describe the construction of WBM road. (7)

OR

VI. (a) Draw the typical dimensioned cross section of a National highway in embankment with one way traffic lane and mark all components. (9)

(b) Differentiate between rigid pavement and flexible pavement. (6)

#### UNIT-III

VII.(a) Explain different types of station yards. (8)

(b) Define the term ballast and list out its functions. (7)

OR

VIII.(a) Explain classification of rail joints with sketches. (10)

(b) Draw the sketch of left hand turn out and Mark the features. (5)

#### UNIT-IV

IX. (a) Explain different types of bridge based on alignment. (6)

(b) Draw typical layout of an artificial harbour and explain its component parts. (9)

OR

X. (a) Explain different types of bridges based on superstructure with figure. (6)

(b) What are the factors considered for the airport site selection. (9)

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