

TED (10)–4012

Reg. No. ....

(REVISION—2010)

Signature .....

SIXTH SEMESTER DIPLOMA EXAMINATION IN ENGINEERING/  
TECHNOLOGY—MARCH, 2013

TRANSPORTATION ENGINEERING  
(Common to CE, EN and WR)

[Time : 3 hours

(Maximum marks : 100)

PART—A

(Maximum marks : 10)

Marks

I Answer all questions in one or two sentences. Each question carries 2 marks.

1. What is meant by sight distance ?
2. Define road Arboriculture.
3. What is meant by sleeper density ?
4. Define the term coning of wheels.
5. What do you understand by scouring ?

(5×2=10)

PART—B

(Maximum marks : 30)

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

1. Discuss different types of curves used in roads with sketches.
2. Define super elevation. How it is expressed and write the formula for super elevation ?
3. Draw the traffic signs for :  
(a) Right turn                      (c) School  
(b) Parking sign
4. What are the requirements of an ideal permanent way ?
5. Name the different types of Ballast and the functions of Ballast.
6. What are the advantages and disadvantages of Tunnels ?
7. Define the terms related to an Airport :  
(a) Run way                      (c) Apron  
(b) Taxi way

(5×6=30)

## PART—C

(Maximum marks : 60)

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

## UNIT—I

- III (a) What are the advantages of roads to a country? 7  
 (b) Draw the typical cross section of a road in cutting showing all details. 8

OR

- IV (a) What do you understand by gradient in roads? Explain different types with the standard values as per I R C specifications. 8  
 (b) Explain different methods of road drainage systems with sketches. 7

## UNIT—II

- V (a) Explain 'pre mix' method of construction of Bituminous bound macadam roads. 8  
 (b) Draw the cross-section of a hill road partly in embankment and partly in cutting showing all details. 7

OR

- VI (a) Explain the construction of a W.B.M. road. 8  
 (b) Draw a neat sketch of a round about indicating the direction of traffic. 7

## UNIT—III

- VII (a) What is plate laying? Explain various methods of plate laying. 8  
 (b) Draw a neat sketch of a right hand Turn out showing its different parts. 7

OR

- VIII (a) Explain different types of rail joints with the aid of sketches. 8  
 (b) Describe the different types of Railway yards. 7

## UNIT—IV

- IX (a) Explain with sketches the classification of bridges according to the location of flooring decks. 8  
 (b) What is a harbour? Draw the layout of an artificial harbour and mark the parts. 7

OR

- X (a) What are the factors to be considered in the selection of site for a bridge? 8  
 (b) What is Break waters? Explain different types of break waters. 7