TED (15/19) – 6014
(Revision – 2015/19)

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Reg.No……..
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DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/ COMMERCIAL PRACTICE, NOVEMBER – 2024

TRANSPORTATION ENGINEERING

[Maximum Marks : 100] [Time : 3 hours]

PART – A
(Maximum Marks : 10)

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

1. Define prime coat & tack coat.
2. Define Reconnaissance survey.
3. List various components of a permanent way.
4. Define the term afflux.
5. Differentiate between bridge and culvert. (5x2=10)

PART – B
(Maximum Marks : 30)

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

1. List the recommendations of Jayakar committee.
2. State the importance of various types of sight distance.
3. Explain different types of vertical and horizontal curves in roads.
4. State the importance of drainage in roads.
5. Explain the need for conning of wheels and adzing of sleeper.
6. List out the requirements and functions of good ballast material.
7. Explain classification of bridges based on the position of flooring.

(5x6=30)

PART – C

(Maximum Marks : 60)

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

UNIT – I

III. (a) With the help of a neat sketch explain cloverleaf interchange. (8)

(b) Explain the types of signals used in highway transportation system. (7)

OR

IV. (a) Classify highways based on Nagpur Road Plan, provide brief explanation. (7)

(b) Discuss the importance of 4 E's in transportation engineering. (8)

UNIT – II

V. (a) Explain different types of highway gradient. (8)

(b) Explain different stages of water bound macadam road construction. (7)

OR

VI. (a) Draw the cross section of a road in cutting and mark the components. (8)

(b) Differentiate between Flexible Pavement and Rigid Pavement. (7)

UNIT –III

VII. (a) Draw a neat sketch of right hand turnout and mark its components. (7)

(b) List the objectives of signaling and principles of interlocking. (8)

OR

VIII. (a) Explain the requirements and functions of sleepers. (7)

(b) Explain different types of station yards. (8)

UNIT – IV

IX. (a) Briefly explain the different classification of bridges. (8)

(b) Explain the necessity of tunnels and its uses. (7)

OR

X. (a) Explain the factors affecting airport site selection. (8)

(b) Define harbour. Explain the types of harbour based on protection needed with sketch. (7)

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