TED (21)5013
(Revision – 2021)

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Reg. No……
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DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE, NOVEMBER – 2025

TRANSPORTATION ENGINEERING

[Maximum Marks: **75**] [Time: **3** Hours]

PART-A

I. Answer '*all*' the following questions in one word or one sentence. Each question carries *'one'* mark.

(9 x 1 = 9 Marks)

		Module Outcome	Cognitive level
1.	List any two roles of transportation in the development of a nation.	M1.03	R
2.	What is mean by intersection at grade?	M1.04	R
3.	Define camber of road.	M2.01	R
4.	State the need of transition curve.	M2.02	R
5.	Enlist any two test on bitumen.	M2.03	R
6.	Name any four zones of Indian railways.	M3.01	R
7.	Define Gauge in railway track.	M3.02	R
8.	What is the need of wing wall in a bridge?	M4.01	R
9.	State the function of Taxi way in airport.	M4.03	R

PART-B

II. Answer any '*eight*' questions from the following. Each question carries *'three'* marks.

(8 x 3 = 24 Marks)

		Module Outcome	Cognitive level
1.	Briefly explain the classification of roads as per IRC.	M1.01	R
2.	Enlist the basic requirements of an ideal alignment of road.	M1.02	U
3.	State any three methods of collecting traffic volume.	M1.03	U
4.	Summaries any three advantages of rotary intersection.	M1.04	U
5.	Explain stopping sight distance and list the factors depending stopping sight distance.	M2.01	U
6.	Describe the functions of ballast.	M3.02	R
7.	Classify the bridges based on live loads as per IRC.	M4.01	R
8.	List out any three situations where construction of tunnel is favored.	M4.02	U
9.	Describe runway and terminal building of an airport.	M4.03	R
10.	Explain the classification of Harbours briefly.	M4.04	R

PART-C

Answer '*all*' questions from the following. Each question carries *'seven'* marks.

(6 x 7 = 42 Marks)

		Module Outcome	Cognitive level
III.	Describe the methods of conducting origin and destination study briefly.	M1.03	U
	OR		
IV.	Draw the clover leaf intersection and mark the traffic flow.	M1.04	U
V.	Explain the need of extra widening of roads.	M2.01	U
	OR		
VI.	Write a detailed note on the structural components of a flexible pavement.	M2.02	U
VII.	Summaries bitumen penetration test and softening point test of bitumen.	M2.03	U
	OR		
VIII.	Compare rigid pavement and flexible pavement.	M2.04	U
IX.	Draw the typical cross section of a railway track -double line section in cutting and mark the parts.	M3.02	A
	OR		
X.	Enlist the requirements of Ideal Permanent Way.	M3.02	U
XI.	Describe interlocking of signals and principles of interlocking.	M3.04	U
	OR		
XII.	Draw the typical layout of left hand turn out and mark its parts.	M3.04	A
XIII.	List out the factors to be considered for the selection of site for a bridge.	M4.01	U
	OR		
XIV.	Discuss the common shapes of tunnel with sketches.	M4.02	U

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