

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V EXAMINATION – SUMMER 2025

Subject Code:3150611

Date:28-05-2025

Subject Name:Transportation Engineering

Time:02:30 PM TO 05:00 PM

Total Marks:70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

MARKS

Q.1	(a) Enlist the functions of IRC.	03
	(b) Classify urban roads.	04
	(c) Enlist and explain advantages and disadvantages of each modes of transportation.	07
Q.2	(a) Explain importance of super elevation in highway geometry design.	03
	(b) Explain in brief 1. OSD 2. SSD	04
	(c) Explain soil stabilization in pavement construction.	07
	OR	
	(c) Draw the sketch of flexible pavement and rigid pavement with description of components.	07
Q.3	(a) Enlist different tests on bitumen.	03
	(b) Define – Running Speed, Journey Speed	04
	(c) Explain determination of penetration value of bitumen.	07
	OR	
Q.3	(a) Enlist different tests on aggregates.	03
	(b) Give the classification of highway maintenance work.	04
	(c) Explain aggregate impact test.	07
Q.4	(a) Enlist Methods of O and D Survey.	03
	(b) Explain Role of Indian Railways in National Development.	04
	(c) Explain different road user characteristics in traffic engineering.	07
	OR	
Q.4	(a) Significance of Coning of wheel in Railway.	03
	(b) Explain types of on street parking in brief.	04
	(c) Explain various measures for the reduction in accident at curvature on highway.	07
Q.5	(a) Define 1. Taxiway. 2. Apron.	03
	(b) Enlist Aircraft Component parts with sketch.	04
	(c) Explain the classification of Airport in detail.	07
	OR	
Q.5	(a) Define 1. Harbor 2. Port	03
	(b) Explain Jetty and Breakwater.	04
	(c) Explain the classification of harbor in detail.	07
