GUJARAT TECHNOLOGICAL UNIVERSITY
BE- SEMESTER–VI EXAMINATION – WINTER 2025

Subject Code:3160608   **Date:29-11-2025**
Subject Name:Urban Transportation Planning
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)**	State the social functions of transportation	**03**
	(b)	Differentiate between Goals and Objectives.	**04**
	(c)	Explain various steps involved in transportation planning.	**07**
Q.2	**(a)**	Describe factors affecting travel demand.	**03**
	(b)	Explain the causes and impacts of urbanization in brief.	**04**
	(c)	Describe major problems in urban transportation.	**07**
		OR	
	(c)	Explain LRTS with advantages and disadvantages.	**07**
Q.3	**(a)**	Define (1) CBD (2) origin (3) study area.	**03**
	(b)	Enlist Various methods of O-D survey. Explain road side interview method.	**04**
	(c)	Explain Lowry land use model.	**07**
		OR	
Q.3	**(a)**	Explain intermediate public transportation in brief.	**03**
	(b)	Define zone. What are the points to be kept in mind while doing the zoning?	**04**
	(c)	What is sampling? Explain various types of sampling.	**07**
Q.4	**(a)**	Enlist various methods of trip generation analysis. Explain category analysis in brief.	**03**
	(b)	Define trip. Describe the factors affecting trip production.	**04**
	(c)	Explain Gravity model for trip distribution in detail.	**07**
		OR	
Q.4	**(a)**	State advantages and disadvantages of BRTS.	**03**
	(b)	Explain in brief the factors affecting modal split.	**04**
	(c)	Develop the trip generation equation using linear regression for the following data. What would be the coefficient of determination? Also, find out the number of trips generated if number of workers in HH is 10.	**07**

No. of workers in HH	1	2	3	4	2	5	6	3	4	2
Trips per day	2	4	7	8	4	12	14	7	5	2

Q.5	**(a)**	Explain various factors affecting route assignment in brief.	**03**
	(b)	Describe corridor components with neat sketch.	**04**
	(c)	Classify and explain urban roads with neat sketch.	**07**

OR

Q.5 (a) State the problems in urban goods movement. 03
(b) Describe the components of urban goods movement 04
(c) Explain various urban forms with neat sketch 07

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