Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – II • EXAMINATION – WINTER • 2014

Subject code: 1721303 Date: 04-12-2014

Subject Name: Regional and Mass Transportation System Planning

Time: 02:30 pm - 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.**

Q.1	**(a)**	Describe the salient features of 3rd road plan in context with regional transportation planning.	**07**
	(b)	How the saturation system for utility is applied for preparing master plan of roads	**07**
Q.2	**(a)**	Describe a multiregional cohort survival model with matrix formulation	**07**
	(b)	Minimum need program and employment program	**07**
		OR	
	(b)	Define :- (i) homogeneity (ii) concentricity (iii) conformity (iv) link (v) mobility (vi) connectivity (vii) terminals	
Q.3	**(a)**	Explain by drawing flow diagram shopping model	**07**
	(b)	Enlist and explain different road patterns	**07**
		OR	
Q.3	**(a)**	Explain by drawing sketch structure of Lowry model	**07**
	(b)	Give broad classification of urban goods movement with pattern of demand	**07**
Q.4		The following data was collected for planning of road development program For an undeveloped area (i) Total area= 9650 km² (ii) agriculture and developed area=3250km² (ii) existing railway track=96km. assume development allowance=12% The number of villages and towns with population range is as follows	**14**

Population range	<500,	501-1000,	1001-2000	2001-5000	>5000
No. of villages & towns	590	280	130	40	08

Existing length of metalled road=322km

Existing length of unmetalled road=405km

Calculate additional length of metalled and un metalled roads as per Nagpur road plan

OR

Q.4	**(a)**	Enlist the steps involved in regional network planning	**07**
	(b)	Discuss the concentric ring and central place theory of regional planning	**07**
Q.5	**(a)**	Describe with all parameters Hansan accessibility Model	**07**
	(b)	What are the desirable features of regional analysis and development models	**07**
		OR	
Q.5		The area of a certain district in India is 13400 sqkm. And there are 12 towns as Per 1981 census. Determine the length of different categories of roads to be provided as per 2001 year as per 3rd 20 year road plan recommendations	**14**

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