## GUJARAT TECHNOLOGICAL UNIVERSITY M. E. - SEMESTER – I • EXAMINATION – WINTER 2012

Subje Subje	ect o ect l	code: 7113 Name: Ur	301N ban	N Transporta	Date: 08-01-2013 n Planning							
Time Instr	e: 02 ruct	.30 pm – ions:	05.0	0 pm		<b>-</b>		Total Marks: 70				
	1. 2. 3.	Attempt al Make suita Figures to	l que able a the 1	estions. assumptions v right indicate	wh ful	erever nece ll marks.	essary.					
Q.1	(a) (b)	Explain 'Urban system' and transportation by showing' ekestic grid.' Explain drawing flow chart " transportation policy making "										
Q.2	(a)	Define the terms:- (i) links (ii) Terminals (iii) Ubiquity (iv) Mobility										
	(b)	(v)Accessibility (vi) CBD (vii) Land use Explain by drawing sketch ' suburban street network'										
	(b)	Give different urban transportation modes at urban level. Give comparison also										
Q.3	(a)	A land us hotels wi using foll subscripts	A land use zone consists of 1980 single family homes, 502 apartments, and 3 <b>0'</b> hotels with 580 rooms in each hotel Calculate daily vehicular trips generated using following equations ts = 5+7.36Us ts = 7+6.3Ua ts = 1.8+12Uh subscripts s,a and h refers home apartments and hotels t and U refers trips and									
	(b)	Explain trip interchange model with example of Toronto Canada model										
Q.3	(a)	What is the demand responsive transportation system? Give example of any urban place.							07			
	<b>(b</b> )	) Describe the gravity model by giving formula also explain each parameters.										
Q.4	(a)	(a) A four zone city Zone Total popul 1 2 3 4 Travel time in t		y has following all existing allation 3100 2600 9050 4650 minutes		characterist Holding ca	ics pacity(acres) 311 282 505 355		10			
		1 to	j	1	2		3	4				
			, 									
		1		5	1	0	12	16				
		2		10	4	.5	9	13				
		3		12	0	9	04	13				

416131306Exponent 2.1 can be assumed on base of work done on other city, the population is likely grow at 15% rate in 15 years What would be the Percentage change in population distribution?

(b) Explain the average growth factor and Detroit method for trip

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Distribution method.

Local centre 3

Local centre 4 105

7 8

## OR

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Q.4	<b>(a)</b>	What are the methods of route assignment? Explain any one. Explain the logit model of mode choice.									
	<b>(b)</b>										
Q.5	(a)	Describe p	n public transport syste	m. <b>07</b>							
	<b>(b)</b>	) Give the schematic diagram of transportation planning process.									
			OR								
Q.5	<b>(a)</b>	Explain with formula Hansen Accessibily model with all parameters.									
	<b>(b)</b>	The da	The data for shopping trips to shopping sites in various parts of city are								
		recorded as below given details. Calculate shopping trip rates by									
		type. Also discuss your results.									
		zone	Location type	No of employees	No of shopping trips						
		1	CBD	3000	7200						
		2	CBD	1400	2500						
		3	Shopping centre 1	3000	6000						
		4	Shopping centre 2	1400	12000						
		5	Local centre 1	15	50						
		6	Local centr e2	50	140						

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85

300

380

2/2