

Enrollment No: \_\_\_\_\_

Exam Seat No: \_\_\_\_\_

# C. U. SHAH UNIVERSITY

## Summer Examination-2020

**Subject Name: Urban Transportation System**

**Subject Code: 4TE07UTS1**

**Branch: B.Tech (Civil)**

**Semester : 7**

**Date : 05/03/2020**

**Time : 10:30 To 01:30**

**Marks :70**

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

Q-1	Attempt the following questions:	(14)
	a) What is trip generation?	1
	b) What is transportation planning?	1
	c) What is zoning?	1
	d) Define Urban settlement	1
	e) What is the full form of BRTS?	1
	f) What is Urbanization?	1
	g) Write down the equation of gravity model.	1
	h) Enlist the four steps of travel demand modeling.	1
	i) Define mobility	1
	j) Define study area	1
	k) Define transportation system	1
	l) Define trip distribution	1
	m) What is transportation survey?	1
	n) Enlist various methods of trip distribution	1

**Attempt any four questions from Q-2 to Q-8**

Q-2	Attempt all questions	(14)
a	1. Develop a trip generation equation using negresion analysis for the following data and the co-efficient of co-relation	7

Income of H.H (in 100)	5	20	8	11
Trips per day	12	10	14	10

b	Explain Modal split Model	7
Q-3	Attempt all questions	(14)
A	Describe in brief corridor identification	7



B	Develop regression equation					7
	Population in zones (in 100)	10	15	20	22	25
	Trips (in 100)	8	10	13	12	15

- Q-4 Attempt all questions (14)
- A Explain problems in urban transportation in the present scenario 4
- B Write a note on Ahmedabad BRTS project with its operation and working. 6
- C Explain various steps involved in Transportation Planning Process with flow charts 4
- Q-5 Attempt all questions (14)
- A List the factor affecting travel demand 6
- B Difference between Trip end modal split and Trip interchange modal split 4
- c what are the innovations in Rapid transit system 4
- Q-6 Attempt all questions (14)
- A Find the interchange for the given figure using intervening opportunity model. 7

P = production    A = attraction

Zone	1	2	3
Trip produce	1250	1850	450
Trip attracted	800	1200	3900

The order of closeness

O/D	1	2	3
1	1	2	3
2	2	1	3
3	2	3	1
4	2	3	4

- B Which are the urban forms? Describe characteristics of each related to the transportation planning. 7
- Q-7 Attempt all questions (14)
- A Describe the basic structures of Transportation system (an over view) 6
- B Explain levels of transportation planning 8



Q-8	Attempt all questions	(14)
a	Explain Bus and Rail transit	7
b	Explain Gravity Model with its calibration.	7

