

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

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

# C. U. SHAH UNIVERSITY

## Winter Examination-2019

**Subject Name : Urban Transportation System**

**Subject Code : 4TE07UTS1**

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

**Semester : 7**

**Date : 22/11/2019**

**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.
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Q-1 Attempt the following questions: (14)

- a) What is CBD?
- b) Define modal split.
- c) What are the desire lines?
- d) Which government body does population calculation in India?
- e) Define Intrazonal trips.
- f) Explain urbanization.
- g) List out O-D Survey methods.
- h) What are the survey data checks?
- i) Write the full form of BRTS.
- j) Define Screen line survey.
- k) What is degree of Urbanization?
- l) Define urban area as per Census India.
- m) Explain in one sentence – Rural area
- n) What is zoning?

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

Q-2 Attempt all questions (14)

- (A) Explain the problems in the urban transportation in the present scenario of high vehicle ownership.
- (B) Define the terms :- (i) Trip (ii) mobility (iii) Accessibility (iv) Horizon year (v) Base year (vi) Origin & destination (vii) Travel forecasting.

Q-3 Attempt all questions (14)

- (A) Write short note on : All or nothing assignment method.
- (B) Prepare a Questionnaire for home interview survey to collect household socioeconomic & travel behaviour information.

Q-4 Attempt all questions (14)

- (A) Explain with formula giving each parameters 'Gravity model' for trip distribution.
- (B) What is trip generation? Explain factors governing trip generation and trip attraction rates.



Q-5 Attempt all questions (14)  
 Explain various steps involved in Transportation Planning Process with flow chart.  
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 Dflow charts.

(B) What are the famous modes of travel at urban level? Describe the factors affecting modal split.

Q-6 Attempt all questions (14)

(A) Explain Gravity Model with its calibration.

(B) Give classification of urban roads and give comments about its accessibility and mobility?

Q-7 Attempt all questions (14)

(A) What do you understand by route assignment? Explain various traffic assignment techniques briefly.

(B) Develop a trip generation equation and find the value of population from following data for particular study area.

Income /month	05-10	10-15	15-20	20-25	25-30
Trip per day.	14	10	7	10	9

Q-8 Attempt all questions (14)

(A) Write a note on Ahmedabad BRTS project with its operation and working.

(B) Distinguish between trip end model and trip interchange model.

