

B.Tech IV Year II Semester (R15) Regular Examinations April 2019

URBAN TRANSPORTATION PLANNING

(Civil Engineering)

Time: 3 hours

Max. Marks: 70

PART – A
 (Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- Define travel demand and its objectives.
 - List out the travel characteristics.
 - Enumerate the zoning principles.
 - List out the types and sources of data required for transportation planning.
 - Distinguish between trip production and trip attraction.
 - List out the limitations of growth factor models.
 - Explain the significance of modal split in transportation planning.
 - Define minimum path tree in traffic assignment.
 - List out the methods of economic evaluation.
 - What are the benefits of economic evaluation?

PART – B

(Answer all five units, 5 X 10 = 50 Marks)

UNIT – I

- 2 List out the assumptions in travel demand estimation and explain the methods of estimation of travel demand.

OR

- 3 Describe the relation between land use and travel demand with suitable example.

UNIT – II

- 4 Explain about the Desire Line diagram and its uses.

OR

- 5 Write short notes on home interview surveys and road side interview surveys.

UNIT – III

- 6 Discuss the criteria for evaluation of regression equations in multiple linear regression models.

OR

- 7 Estimate the future trip distribution by Fratar method from the following data for two iterations.

O \ D	1	2	3	4	Estimated future trips produced
1	--	20	30	30	160
2	25	--	35	40	200
3	30	40	--	30	300
4	25	45	30	--	250
Estimated future trips attracted	160	315	190	300	

UNIT – IV

- 8 Explain about the factors affecting modal split.

OR

- 9 Explain All-or-nothing assignment technique and capacity restraint technique. Bring out their limitations.

UNIT – V

- 10 Explain the Net Present Value method and Internal Rate of Return methods with formulae.

OR

- 11 Write short notes on the following:

- Vehicle operating cost (VOC).
- Accident costs.