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Eighth Semester B.E. Degree Examination, July/August 2022
Urban Transportation and Planning

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. With the help of flow chart, explain system approach to the urban transport planning. (10 Marks)
b. What are the various types of survey to be carried out in transport planning? Explain with figure. (10 Marks)

OR

- 2 a. Stat the factor in selection of external Cordon line (10 Marks)
b. What do you mean by Inventory of transportation, facilities? Explain. (10 Marks)

Module-2

- 3 a. Define Trip generation. What are the stages in urban transport planning? (05 Marks)
b. What are the purposes of Trip? (05 Marks)
c. Given that a zone has 275 household with car and 275 household without car and the average trip generation rate for each group is respectively 5.0 and 2.5 trips per day. Assuming that in the future all household will have a car, find the growth factor trips from that zone, assuming that population and income remains constant. (10 Marks)

OR

- 4 a. Let the trip rates of a zone is explained by the household size done from the field survey. It was found that the household size are 1, 2, 3 and 4. The trip rate of the corresponding household is as shown in the table below. Fit a linear equation relating trip rate and household size.

	Household size (x)			
	1	2	3	4
Trips	1	2	4	6
per	2	4	5	7
day (y)	2	3	3	4
Σy	5	9	12	17

- b. Explain Growth factor modeling. (10 Marks)
c. What do you mean by multilinear regression Analysis? (05 Marks)
(05 Marks)

Module-3

- 5 a. What is Trip Distribution? Explain. (05 Marks)
b. What are the different methods of Trip Distribution? Explain it. (10 Marks)
c. Explain uniform (constant) Factor method. (05 Marks)

OR

- 6 a. What is Fractor Method? Explain (06 Marks)
b. List out the advantages and disadvantages of uniform growth rate. (06 Marks)
c. Explain Furness method. (08 Marks)

Module-4

- 7 a. What are the different Assignment Techniques used in Trip Assignment? Explain All – or – Nothing Assignments. (06 Marks)
b. Explain Moore's Algorithm with example. (10 Marks)
c. Define Capacity Restraint Assignment. Mention disadvantages. (04 Marks)

OR

- 8 a. Explain the factors affecting modal split. (10 Marks)
b. List the application of Traffic Assignment. (05 Marks)
c. Explain briefly structure of Lowry model. (05 Marks)

Module-5

- 9 a. What are the difficulties in transport planning? Explain it. (10 Marks)
b. Explain Quick response techniques with example. (10 Marks)

OR

- 10 Explain recent case study in transport planning. (20 Marks)
