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10CV843

Eighth Semester B.E. Degree Examination, June/July 2019
Urban Transport Planning

Time: 3 hrs.

Max. Marks:100

Note: Answer any FIVE full questions, selecting atleast TWO questions from each part.

PART - A

- 1 a. Explain the scope of Urban transport planning. (10 Marks)
 b. Define system approach and explain with a neat flow diagram system approach in urban transport planning. (10 Marks)
- 2 a. Draw a flow chart of stages in urban transport planning process. (12 Marks)
 b. Write short notes on : i) Trip distribution ii) Modal split. (08 Marks)
- 3 a. Define Zoning. Explain the points to keep in view when dividing the area into zones. (12 Marks)
 b. Explain how road side interview survey and registration number plate survey are carried out. (08 Marks)
- 4 a. Define Home – based trips and Non – Home based trips. Explain the factors governing trip generation and attraction rates. (10 Marks)
 b. Solve the below matrix by Frator’s method. (10 Marks)

O \ D	A	B	C	D
A	-	10	12	18
B	10	-	14	14
C	12	14	-	6
D	18	14	6	-
Present total	40	38	32	38
Estimated future Totals	80	114	48	38
Growth factor E	2	3	1.5	1

PART - B

- 5 a. Explain the phases involved in calibration of the gravity model. (10 Marks)
 b. The number of trips produced in an attracted to the three zones 1, 2 and 3 are tabulated below

Zone	1	2	3	Total
Trips produced	14	33	28	75
Trips attracted	33	28	14	75

The order of closeness of the zones is including by the following matrix.

O \ D	1	2	3
1	1	2	3
2	2	1	3
3	2	3	4

The zonal L factors are given below :

Zone	L - factors
1	0.04
2	0.02
3	0.04

Distribute the trips between the zones.

(10 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
 2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

- 6 a. With a flow chart, explain the modal split carried out after trip distribution with its advantages and disadvantages. (10 Marks)
b. Explain the recent developments in modal split analysis. (10 Marks)
- 7 a. Explain minimum path tree with Moore's algorithm. (10 Marks)
b. With a flow chart, explain features of Lowry model. (10 Marks)
- 8 Write a short notes on the following :
- a. Quick response techniques. (05 Marks)
b. Diversion curves. (05 Marks)
c. Difficulties in transport planning. (05 Marks)
d. Applications of traffic assignment. (05 Marks)

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