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10CV843

Eighth Semester B.E. Degree Examination, Dec.2016/Jan.2017
Urban Transport Planning

Time: 3 hrs.

Max. Marks:100

Note: Answer FIVE full questions, selecting at least TWO questions from each part.

PART – A

- 1 a. Explain the Inter dependency of Land use and traffic. (10 Marks)
b. Explain the system Approach to Urban Transport planning. (10 Marks)
- 2 a. Explain two important stages in Urban Transport planning. (10 Marks)
b. Write short notes on :
 i) Trip generation
 ii) Trip Assignment. (10 Marks)
- 3 a. Define ‘External Cordon Line’. Give four important factors considered while selecting external cordon line. (06 Marks)
b. Define ‘zone’. Mention the various factors considered in dividing whole are into zones. (06 Marks)
c. Explain how the Home – interview surveys are carried out. (08 Marks)
- 4 a. Explain the various factors governing trip generation and attraction rates. (10 Marks)
b. What is category Analysis? What are the assumptions made in category Analysis? What are its advantages? (10 Marks)

PART – B

- 5 a. Explain any two growth factors methods trip distribution. (10 Marks)
b. The number of trips produced in and attracted the three zones 1, 2, and 3 are tabulated as follows :

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

The order of closeness of zones is shown in the following matrix

| | | | | |
|---|---|---|---|--|
| | D | | | |
| O | 1 | 2 | 3 | |
| 1 | 1 | 2 | 3 | |
| 2 | 2 | 1 | 3 | |
| 3 | 2 | 3 | 1 | |

The zonal L factors are given below

| | |
|------|-------------|
| Zone | L – Factors |
| 1 | 0.04 |
| 2 | 0.02 |
| 3 | 0.04 |

Distribute the trips between zones by the intervening opportunities model technique.

(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.

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- 6 a. Explain the various factors affecting the modal split. (10 Marks)
b. With a flow chart explain the modal split carried out after trip distribution with its advantages and disadvantages. (10 Marks)
- 7 a. Write short notes on :
i) Minimum path tree
ii) All or Nothing Assignment. (10 Marks)
b. Explain features of Lowry Model with a flow chart. (10 Marks)
- 8 Write short notes in the following :
a. Difficulties in transport planning
b. Diversion curves
c. Quick Response transport planning technique
d. Gravity model. (20 Marks)

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