



CBCS SCHEME

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17CV751

Seventh Semester B.E. Degree Examination, Jan./Feb. 2023

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. Explain with flow chart diagram system approach to Transport Planning Process. (10 Marks)
b. Explain the features of BRTS. (06 Marks)
c. Explain Para transit system. (04 Marks)

OR

- 2 a. Explain the problem in Urban Transportation Planning in the Present Scenario. (10 Marks)
b. Explain the merits and comparison of different transport system. (10 Marks)

Module-2

- 3 a. Explain the importance of Home Interview Surveys. (07 Marks)
b. Explain the uses of secondary sources for collection of data in transport. (05 Marks)
c. What is meant by sampling technique and explain the various types of samplings. (08 Marks)

OR

- 4 a. Explain the factors considered for the selection of External Cordon line for an urban transportation. (10 Marks)
b. Write short notes on :
i) Commercial vehicle surveys
ii) Post card questionnaires surveys. (10 Marks)

Module-3

- 5 a. Explain in detail the various factors governing the trip generation. (10 Marks)
b. Explain the multiple regression analysis for trip generations and assumptions. (10 Marks)

OR

- 6 a. What is category analysis and mention the advantages and disadvantages of category analysis. (10 Marks)
b. The following data shows average household size and total trips made per day for a particular zoned of the study area. Develop the trip production equation $y = a + bx$ and compute the co-efficient of correlation.

| Average house hold size | Total trips /day |
|-------------------------|------------------|
| 2 | 4 |
| 3 | 6 |
| 4 | 7 |
| 5 | 8 |
| 6 | 12 |

(10 Marks)

Module-4

- 7 a. Explain the details types of trip distribution methods. (10 Marks)
 b. Solve the future trips for the given data below by Frater method and estimated future trips are 80, 114, 48 and 38.

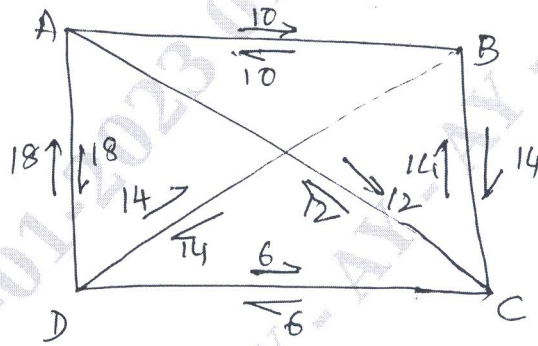


Fig. Q7(b)

(10 Marks)

OR

- 8 a. Explain briefly the intervening opportunity model and competing opportunity model. (10 Marks)
 b. Explain the factors affecting model split. (05 Marks)
 c. Explain the desire line diagram with neat sketch. (05 Marks)

Module-5

- 9 a. Describe the structure of a Lowry model using a flow chart. (10 Marks)
 b. Explain to different types of Assignment Techniques for traffic assignment. (10 Marks)

OR

- 10 a. Explain the basic elements of transport networks with a neat sketch. (10 Marks)
 b. Write short notes on any two :
 i) Capacity restraint techniques
 ii) Difficulties in transport planning
 iii) Diversion curves. (10 Marks)
