

Code No: R164201E

R16

Set No. 1

IV B.Tech II Semester Regular/Supplementary Examinations, June – 2022
URBAN TRANSPORTATION PLANNING ENGINEERING

(Civil Engineering)

Time: 3 hours

Max. Marks: 70

Question paper consists of Part-A and Part-B
Answer ALL sub questions from Part-A
Answer any FOUR questions from Part-B

PART-A (14 Marks)

1. a) What are travel attributes? [2]
- b) What is sampling? [2]
- c) Define trip generation. [2]
- d) What is aggregate approach? [3]
- e) What is skimming tree? [2]
- f) What is corridor deficiency? [3]

PART-B (4x14 = 56 Marks)

2. a) What are the travel characteristics in an urban area? [7]
- b) Discuss about sequential aggregate models. [7]
3. a) Define study area. What are the factors to be considered while selecting the external cordon line for an urban transportation study? [7]
- b) How the secondary sources are utilized in the data analysis for transportation planning. [7]
4. a) Explain various types of Growth factor methods. [7]
- b) Discuss about Gravity model. [7]
5. a) What is binary logit model? Explain. [7]
- b) Explain the aggregate models used in mode choice analysis. [7]
6. a) Explain various capacity restraint techniques used in traffic assignment. [7]
- b) What are the basic elements of transport networks? [7]
7. a) Explain the travel forecasts to evaluate alternative improvements. [7]
- b) Discuss about corridor deficiency analysis. [7]

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Question paper consists of Part-A and Part-B

Answer ALL sub questions from Part-A

Answer any FOUR questions from Part-B

PART-A (14 Marks)

1. a) What is travel demand? [2]
- b) What is expansion factor? [2]
- c) What is trip attraction? [2]
- d) What is maximum utility? [2]
- e) Write a short note on route properties. [3]
- f) What is the necessity of travel forecasts? [3]

PART-B (4x14 = 56 Marks)

2. a) Explain the significance of transportation planning in India? [7]
- b) Discuss about aggregate and disaggregate techniques. [7]
3. a) Explain the procedure for carrying out Home interview survey. [7]
- b) What are the points to be considered, while dividing the study area into zones for transportation planning? [7]
4. a) What is Category analysis? What are the assumptions made in the categorization of households? [7]
- b) Describe the factors governing trip generation and attraction rates. [7]
5. a) What is multinomial logit model? Explain. [7]
- b) Explain various mode split models. [7]
6. a) Explain in detail about various traffic assignment techniques. [7]
- b) What is the purpose of traffic assignment and what are the general principles involved? [7]
7. a) Explain how you will identify potential corridor in urban transit system. [7]
- b) Discuss about pivot point analysis. [7]