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P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belgaum)

Eighth Semester, B.E. - Civil Engineering

Semester End Examination; June-2016

Urban Transport Planning

Time: 3 hrs

Max. Marks: 100

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

PART - A

1. a. Explain the scope of Urban Transport Planning. 6
- b. How do you make the interdependence of land use and traffic system to Urban Transport Planning? 6
- c. With the help of Flow Chart, Explain system approach to Urban Transport Planning. 8
- 2 a. Define : i) Trip Generation ii) Trip distribution 10
iii) Modal split iv) Trip Assignment
- b. Explain how various stages are planned in transportation process. 10
- 3 a. Define “External Cordon Line” and Explain the factors considered in selection of External Cordon line. 6
- b. Write short notes on : 8
- i) Inventory of Transport Facilities
- ii) Inventory of land use and economic activities
- c. What are the various surveys to be carried out the transport planning? Explain. 6
- 4 a. State the Category analysis with Assumptions and advantages as applied to trip generation and their advantages. 12
- b. Write descriptive note on the factors governing trip generation and trip attraction rates. 8

PART - B

- 5 a. Explain uniform factor method of trip distribution with its advantages and disadvantages. 10
- b. Explain the disadvantages of Gravity models over growth factor methods in trip distribution. 10
- 6 a. List and briefly explain the factors affecting modal split. 10
- b. Write flow diagram for modal split carried out between trip generation and trip distribution. 10
- 7 a. Explain the general principles and applications of traffic assignment. 8
- b. Explain ‘Moore’s Algorithm’ in traffic assignment. 4
- c. Write descriptive note on diversion curve. 8

- 8 a. Explain the difficulties in transport planning for small and medium towns with special reference to a specific case study.
- b. The total trips produced in and attracted to the three zones A, B and C a survey area in the design year are tabulated as :

10

Zone	Trips Produced	Trips attracted
A	2000	3000
B	3000	4000
C	4000	2000

10

is known that the trips between two Zones are inversely proportional to the second power of the travel time between zones which is uniformly 20 minutes, if the trip interchange between zones B and C is known to be 600, Calculate the trip interchange between zones A and B, A and C, B and A , C and B.

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