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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/July - 2015

Urban Transport Planning

Time: 3 hrs *Max. Marks: 100*

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

PART - A

1. a. Explain the scope of Urban Transport Planning. 6

   b. Explain how you make the interdependence of land use and Traffic system to urban transport planning, with the help of a flow chart. 6

   c. Briefly explain the systems approach in transportation planning with the help of flowchart. 8

2 a. Define: (i) Trip Generation ii) Trip Assignment. 10

   b. With the help of flow chart, explain various stages in Transport planning process. 10

3 a. Define "External Cordon line" and explain various factors considered in the selection of external cordon line. 6

   b. Explain in detail, with sketches, various basic movements in Transportation survey. 6

   c. Define zone, mention the different factors considered in dividing the whole area into zones. 8

PART - B

4. a. What are the various factors governing the trip generation rates? 8

   b. Explain: i) Home based rip and ii) Non home based trip. 6

   c. List the Assumptions in multiple linear regression analysis. 6

5.a. Explain: i) Gravity model ii) Turners method 8

   b. The total trips produced in and attracted to the these zones A, B and C of a survey area is the design year are tabulated as:

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

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   It 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.

6 a. Explain briefly:

   i) Pre distribution split ii) Post distribution split 10

Contd…2

	b. Explain with the help of a flow diagram, model split carried out after trip distribution.	10
7 a.	Define Traffic Assignment. Explain the general principles and applications of Traffic Assignment.	10
	b. Explain the various factors considered in the selection of land use transport model.	10
8 a.	Explain the various difficulties in transport planning for small and medium cities.	10
	b. How are you using quick – response techniques for small and medium cities?	10

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