



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

(An Autonomous Institution affiliated to VTU, Belagavi)

Eighth Semester, B.E. - Civil Engineering

Semester End Examination; June - 2017

Urban Transport Planning

Time: 3 hrs

Max. Marks: 100

Note: Answer FIVE full questions, selecting ONE full question from each unit.

UNIT - I

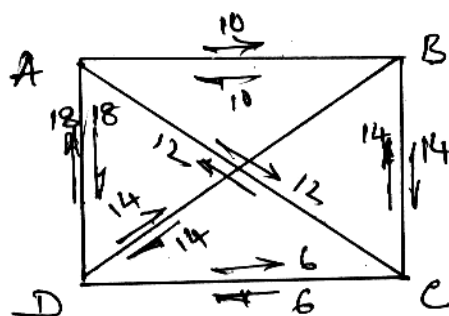
- 1 a. Explain the scope of transport planning and interdependence of land use and traffic. 10
- b. Draw a flow diagram of various stages in urban transport planning process. 10
- 2 a. What are the processes involved in traffic system approach to transportation planning? 10
- b. Explain the main objectives of survey and analysis of existing conditions and forecast, analysis of future conditions and plan synthesis in transport planning. 10

UNIT - II

- 3 a. Explain briefly by method of home interview surveys with formats. 10
- b. Explain Road Side Interview Surveys and Registration plate surveys. 10
- 4 a. What are the factors governing trip generation and attraction rates? Explain. 10
- b. Explain Home-based trips and Non-home based trips and also explain Multiple Regression Analysis with an example. 10

UNIT - III

- 5 a. What is Trip distribution? What are the methods of Trip distribution? 8
- b. Obtain future trips for the following example by Fratar method : 12



- 6 a. Explain Uniform Factor method with a suitable example. 10
- b. Using the following example obtain growth factors by Furness method : 10

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	1	8	3	16	15
	2	6	9	8	5
	3	10	8	3	8
	4	2	4	7	12

UNIT - IV

- 7 a. Explain 'Moore's Algorithm' for finding the shortest path of traffic assignment. 10
- b. Write a flow diagram for Modal split carried out after trip distribution. 10
- 8 a. Explain the smock method and diversion curves. 10
- b. What are the factors affecting Model split? Explain. 10

UNIT - V

- 9 a. Explain Land-use transport models and what are the considerations for selecting the models? 10
- b. Draw flow diagram of Lowry land use transport model for urban structure analysis. 10
- 10 a. Draw flow diagram of structure of Lowry model. 10
- b. What are the factors that govern the planning process for small and medium cities? 10

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