

**GUJARAT TECHNOLOGICAL UNIVERSITY****ME - SEMESTER– II (Old course)• REMEDIAL EXAMINATION – SUMMER 2015****Subject Code: 1721303****Date:14/05/2015****Subject Name: Regional & Mass Transportation System Planning****Time: 02:30 pm to 5:00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) What are the Criteria for rural spatial structure? Explain. **07**  
 (b) Define the Terms Link efficiency, Zonal attraction Potential, Transportation Priority index, Functional economic area. **07**
- Q.2** (a) Explain & Quantify how socio economical parameters affect the planning Process for a regional mass Transportation system? **07**  
 (b) State criteria to select options available for mass transportation system? How could they be useful to select best option? **07**
- OR**
- (b) Explain why and how the structural changes are made in a network to accommodate growing demand under urban & rural conditions. **07**
- Q.3** (a) Discuss the factors influencing accessibility to a system? How it effect the system Performance, Discuss? **07**  
 (b) Define the terms Simble index, Dispersion index, Detour index, associate number, connectivity index. **07**
- OR**
- Q.3** (a) What are the delineation criteria for regional Planning? Enlist and explain the criterion adopted for network planning at Urban & Regional level. **07**  
 (b) Write a note on Saturation Utility concept. **07**
- Q.4** (a) What is Cohort survival model? Explain giving suitable example that how could it be useful in developing a tentative O-D Matrix for a defined area whose zonal characteristics are well defined? **14**
- OR**
- Q.4** (a) Enlist various Spatial interaction models? Discuss how they are useful in Transportation Planning. **14**
- Q.5** (a) Write a note on Hansen's Accessibility model. **07**  
 (b) What is link efficiency? How could it be determined for a network, explain giving example? **07**
- OR**
- Q.5** (a) Discuss the Problems created by Goods Traffic? Suggest and discuss measures and models to tackle flow of goods Traffic. **07**  
 (b) What is meant by Prioritization? Why is it needed? How could you determine the route and network improvement Priority? **07**

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