

**GUJARAT TECHNOLOGICAL UNIVERSITY****M. E. - SEMESTER – I • EXAMINATION – WINTER 2012****Subject code: 714803****Date: 11-01-2013****Subject Name: Infrastructure & Transportation Planning****Time: 02.30 pm – 05.00 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) Explain the urban water supply network system. **07**  
(b) What is the need of planning and management of infrastructure development in urban areas? **07**

- Q.2** (a) Explain distribution system characteristics for a water supply scheme. **07**  
(b) Explain components and working of a water treatment plant. **07**

**OR**

- (b) Explain components and working of a sewage treatment plant. **07**

- Q.3** (a) Explain various types of pollutants in raw water and its effect on human. **07**  
(b) Explain various types of aerators in sewerage treatment plant. **07**

**OR**

- Q.3** (a) Explain the location principals for fire station. **07**  
(b) Explain types of sludge processing in sewerage treatment plant. **07**

- Q.4** (a) Explain the solid waste disposal techniques and its treatment typology based on quality of waste. **07**  
(b) Explain role of cellular telecommunication services for an urban area. **07**

**OR**

- Q.4** (a) Explain the municipal solid waste management system in context of a city. **07**  
(b) Explain the characteristics of municipal solid waste. **07**

- Q.5** (a) Explain Importance of mass transportation services in urban areas. **07**  
(b) Write a detailed note on traffic control devices – signs, signals and road markings. **07**

**OR**

- Q.5** (a) Enlist various types of models for urban transportation planning and explain any three. **07**  
(b) Explain urban transportation planning process. **07**

\*\*\*\*\*