

GUJARAT TECHNOLOGICAL UNIVERSITY**M.E –IIst SEMESTER–EXAMINATION – JULY- 2012****Subject code: 1721207****Date: 14/07/2012****Subject Name: Infrastructure Engineering and management****Time: 10:30 am – 13:00 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) Give general characteristics of infrastructure project **07**
(b) Explain (i) goal and (ii) steps of life cycle analysis **07**

- Q.2** (a) Explain different types of data to be collected for infrastructure project (Consider any typical infrastructure project) . Also discuss data analysis **07**
(b) Describe the (i) Technological risk and (ii) Construction Risk of infrastructure project **07**

OR

- (b) What is need assessment of infrastructure project ? describe the need assessment of any type of infrastructure project **07**

- Q.3** (a) Discuss case study of any typical infrastructure project giving Technical and planning details **07**
(b) The details of power need of different Industries are given below in MW 1.2, 2.0, 3.5, 4.2, 5.6, 2.2, 2.9, 3.0, 4.3, 2.1, 1.9, 1.1 find out (i) Mean (ii) Median (iii) Variance (iv) Standard deviation (v) Coefficient of variance **07**

OR

- Q.3** (a) Explain Important of rehabilitation strategy of any project . Describe necessary steps to be taken for rehabilitation of project affected people of any dam project **07**
(b) Explain Role of Infrastructure in India's development **07**

- Q.4** (a) How Infrastructure management system will help in management of infrastructure project. Also discuss how management system can be developed for infrastructure project ? **07**
(b) Explain planning process of Building Infrastructure for residential township scheme to accommodate 100000 population . **07**

OR

- Q.4** (a) Explain (i) BOT (ii) BOO (iii) DB/Turn key **07**
Q.4 (b) Explain Economic analysis of Infrastructure project . Also discuss how it will be useful in calculating user charges **07**

- Q.5** (a) Explain different challenge mitigation strategies of infrastructure project **07**
(b) Describe general considerations of life cycle analysis of any thermal power station **07**

OR

- Q.5** (a) Explain performance indicators of infrastructure project **07**
(b) What is performance evaluation ? Explain performance of evaluation of any transportation or communication infrastructure project **07**
