

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
ME – SEMESTER II (NEW) – • EXAMINATION – SUMMER 2016

Subject Code: 2720725

Date: 02/06/2016

Subject Name: Economics of Energy Generation & Supply

Time: 10:30 am to 01:00 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 do you mean by End use method of forecasting? Explain its features. **07**
(b) Explain Artificial neural networks of forecasting. **07**
- Q.2** (a) Explain alternative approaches for energy demand analysis. **07**
(b) Explain Economic foundations of energy demand **07**
- OR**
- (b) Explain Input–Output Model of forecasting. **07**
- Q.3** (a) Define energy security and its indicators. **07**
(b) Define generation capacity reserve. Explain spinning reserve and quick start reserve. **07**
- OR**
- Q.3** (a) Define Diversity Factor, Load Factor, Demand Factor and Plant Capacity Factor. **07**
(b) Explain Demand-side management. **07**
- Q.4** (a) Explain total resource cost test & utility cost test. **07**
(b) Explain Economics of Fossil Fuel production. **07**
- OR**
- Q.4** (a) Explain direct & indirect load control. **07**
(b) Explain opportunities & economics of energy efficiency. **07**
- Q.5** (a) Explain Supply Forecasting. **07**
(b) Discuss various drivers of Renewable Energy. **07**
- OR**
- Q.5** (a) Explain Economic Dispatch and Unit Commitment. **07**
(b) Explain various technologies of Renewable Energy Generation. **07**
