Seat No.:	Enrolment No.
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## **GUJARAT TECHNOLOGICAL UNIVERSITY**

ME - SEMESTER- II(New course) • EXAMINATION (Remedial) - WINTER- 2015

Subject Code: 2724510 Date: 14/12/2015

**Subject Name: ENERGY EFFICIENT ELECTRICAL SYSTEMS** 

Time:2:30 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.

Q1 (a) Discuss the Primary and Secondary energy for Electrical Systems. (b) Explain the power factor issues with one case study.	07 07
Q2 (a) Explain long term energy scenario for India. (b) Write short note on energy security.  OR	07 07
Q2 (b) Explain the Energy Audit system.	07
Q 3 (a) Define contract demand and billing demand. (b) What are the types of commonly used lamps and its advantages and disadvantages?  OR	07 07
<ul><li>Q 3 (a) Define the Domestic, commercial &amp; industrial lighting systems,</li><li>(b) Explain the performance characteristics of lamps and energy efficient practices in Lighting systems.</li></ul>	07 07
<ul><li>Q 4 (a) Explain the Factors affecting energy efficiency Electric Motors.</li><li>(b) Give the name and use of different energy audit instruments in detail.</li></ul>	07 07
OR Q 4 (a) List out the advantages of energy efficient motors.	07
(b) Explain energy conservation method for a pumping system.	07
Q 5 (a) Write short note on Electronic ballast.	07
(b) Explain the load management system in detail.	07
OR OS (A) Final Andrew Control of the Management	0.5
Q 5 (a) Explain the Automatic power factor controllers.	07 07
(b) Write a short note on energy saving in Energy efficient transformers.	U/

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