

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V • EXAMINATION – SUMMER • 2014****Subject Code: 150801****Date: 13-06-2014****Subject Name: Electrical Power Engineering****Time: 10.30 am - 01.00 pm****Total Marks: 70****Instructions:**

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

- Q.1** (a) State factors affecting selection of site and location of Nuclear power plant. **07**
(b) Draw schematic arrangement of Thermal power plant. Also state function of each block. **07**
- Q.2** (a) Classify the Underground cables. Also describe the general construction of an underground cable with neat sketch. **07**
(b) State different methods of power factor improvement. Explain any one in details. **07**
- OR**
- (b) State the factor affecting on site selection of hydro power station. Also write the advantages and disadvantages of hydro power plant. **07**
- Q.3** (a) Derive the ABCD parameter for Nominal Π medium transmission line. **07**
(b) Explain single line diagram of 33 KV / 11 KV substations. **07**
- OR**
- Q.3** (a) Explain different equipments used in substations with its symbols. **07**
(b) State different methods to improve String efficiency. **07**
- Q.4** (a) Write a note on Tap changing Transformer (ON load). **07**
(b) State and explain different types of tariff. **07**
- OR**
- Q.4** (a) Describe briefly the different types of A.C. distributors. **07**
(b) What is Corona? Explain its advantages and disadvantages. Also state factors affecting it. **07**
- Q.5** (a) Explain (1) Diversity factor (2) Plant capacity factor (3) Load factor. **07**
(b) Explain briefly different types of insulators used in power system. **07**
- OR**
- Q.5** (a) State the types of unsymmetrical fault analysis & explain any one in detail. **07**
(b) Explain FACTS devices. **07**
