

GUJARAT TECHNOLOGICAL UNIVERSITY
PDDC - SEMESTER-III • EXAMINATION – SUMMER 2013

Subject Code: X 30904**Date: 17-05-2013****Subject Name: Electrical Power****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 schematic arrangement Nuclear Power Station. Also state the disadvantages of Nuclear Power Station. **07**
- (b) Explain the schematic arrangement of Thermal power station **07**
- Q.2** (a) State the types of underground cable. Explain the general construction of cable. **07**
- (b) Explain advantages and disadvantages of Gas turbine power plant. **07**
- OR**
- (b) Explain the schematic arrangement of Hydro power station **07**
- Q.3** (a) How wind is utilized for generation of electricity? State merits and demerits of wind energy. **07**
- (b) Distinguish between bundle conductor 3-phase line with two conductors per bundle and double circuit 3-phase line. **07**
- OR**
- Q.3** (a) Describe with the help of a neat sketch the working of solar power plant. what are its salient features. **07**
- (b) Compare conventional and non-conventional energy sources. **07**
- Q.4** (a) Compare overhead and underground transmission of power. **07**
- (b) State different types of insulators. Explain two of them. **07**
- OR**
- Q.4** (a) State the different types of conductors. Explain properties of good conductor material. **07**
- Q.4** (b) Explain all types of Distribution Systems in detail **07**
- Q.5** (a) Explain Arc suppression coil earthing and resonant earthing. **07**
- (b) Explain different types of equipments used in substation. **07**
- OR**
- Q.5** (a) What are the advantages of Neutral grounding? Explain voltage transformer earthing. **07**
- (b) What are the causes of poor power factor? Also explain the methods of power factor improvement. **07**
