

GUJARAT TECHNOLOGICAL UNIVERSITY
PDDC– SEMESTER III– • EXAMINATION –WINTER- 2016

Subject Code: X30904**Date:06/01/2017****Subject Name: Electrical Power****Time:10:30 AM to 1:00 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 schematic arrangement of steam power station with neat diagram **07**
(b) Discuss the essential factors to be considered for the site selection of Nuclear power station **07**
- Q.2** (a) Explain schematic arrangement of Hydro power station with neat diagram **07**
(b) Explain schematic arrangement of gas turbine power plant with neat diagram **07**
- OR**
- (b) Explain comparison of various power plants **07**
- Q.3** (a) Explain merits and demerits of wind energy **07**
(b) Discuss the essential factors to be considered for the site selection of steam power station **07**
- OR**
- Q.3** (a) Explain wind turbine generator unit with battery storage facilities **07**
(b) Explain merits and limitation of solar energy conversion and utilization **07**
- Q.4** (a) Explain types of insulators **07**
(b) Explain skin effect and proximity effect **07**
- OR**
- Q.4** (a) Explain types of distribution systems **07**
(b) Derive equation of inductance of a single phase two wire system **07**
- Q.5** (a) Explain in brief about the classification of substation also differentiate between indoor substation and outdoor substation **07**
(b) Explain methods of power factor improvement **07**
- OR**
- Q.5** (a) Explain resistance grounding **07**
(b) Explain substation equipments **07**
