

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-VIII • EXAMINATION – SUMMER 2014

Subject Code: 180801**Date: 05-06-2014****Subject Name: Testing and Installation of Electrical Equipments and System****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) Explain the standard designations for the degree of cooling. Also explain the first characteristics numeral in the standard degree of cooling designation. **07**
(b) Explain the standard maintenance procedure for a typical motor in factory premises. **07**
- Q.2** (a) Explain the seven principles for safety management. **07**
(b) Recommend a safety procedure and precautions in electric plant to prevent an electric shock. **07**
- OR**
- (b) (1) Draw the waveform for the following conditions: (I) outage(II) Surge (III) Harmonic (IV) Voltage Sag **04**
(2) State the classification of substations. **03**
- Q.3** (a) Explain the procedure of investigation of power quality. **07**
(b) Explain the procedure and significance of temperature rise test and its correlation with rated normal current. **07**
- OR**
- Q.3** (a) What is load shedding? Why is it necessary? How is it carried out and where? **07**
(b) Explain low voltage d.c. system in a substation. **07**
- Q.4** (a) Explain the procedure of drying out of electric motor using the (1) radiating lamp (2) drying chambers and resistor heaters. **07**
(b) Explain the procedure of acceptance and storage of induction motor. **07**
- OR**
- Q.4** (a) Explain the main functions of SCADA. **07**
(b) State the conditions for which HVDC Links are preferred? **07**
- Q.5** (a) State the factors to be considered while making a choice of a particular drive. **07**
(b) State and explain essential steps in unit commissioning of synchronous generator. **07**
- OR**
- Q.5** (a) What is cyclic duration factor? Explain with standard notations. Explain the term MRC, STR and DTR for rotating electrical machines. **07**
(b) List the methods of voltage control in distribution system. **07**
