

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER-VIII (NEW) EXAMINATION – WINTER 2020****Subject Code:2180901****Date:28/01/2021****Subject Name:Testing and Commissioning of Electrical Equipments****Time:02:00 PM TO 04:00 PM****Total Marks: 56****Instructions:**

1. Attempt any **FOUR** questions out of **EIGHT** questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) What is earth resistance? Which are the factors affecting on its? **03**
(b) What is different between system earthing and equipment earthing? **04**
(c) Explain tan delta test on power transformer with help of circuit diagram. **07**
- Q.2** (a) Explain basic requirement of foundation. **03**
(b) Explain procedure of alignment of shaft of electrical machine. **04**
(c) What is insulation resistance? How is it measured for power transformer? **07**
- Q.3** (a) Explain significant of polarization index. **03**
(b) Explain polarity test of transformer. **04**
(c) Write a short note on enclosure. **07**
- Q.4** (a) Draw connection of Dy1 and Yd11 type transformer connection. **03**
(b) Explain breakdown voltage (BDV) test of transformer oil. **04**
(c) List out commissioning test of power transformer. Explain voltage ratio test with the help of circuit diagram. **07**
- Q.5** (a) Explain any two troubles, causes and remedies of DC generator. **03**
(b) Explain temperature rise test on rotating electrical machine. **04**
(c) Explain maintenance schedule of induction motor. **07**
- Q.6** (a) Define degree of protection of rotating electrical machine. **03**
(b) List out the commissioning test of synchronous machine. **04**
(c) Explain trouble, cause and remedies of 3 phase induction motor. **07**
- Q.7** (a) Enlist different tests to be performed on busbar. **03**
(b) Write a short note on gas insulated substation. **04**
(c) Explain Murry loop test for ground fault location in underground cable. **07**
- Q.8** (a) Explain any two trouble, causes and remedial measures of circuit breaker. **03**
(b) Explain mechanical endurance test on circuit breaker. **04**
(c) Write a short note on location of lighting arrester. **07**
