

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VIII (OLD) EXAMINATION – SUMMER 2019****Subject Code: 180901****Date: 15/05/2019****Subject Name: Commissioning of Electrical Equipments****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) Define Routine test & Type test. List out the different types of routine test performed on power transformer. **07**
(b) Explain polarity test of 3-phase transformer. **07**
- Q.2** (a) Define polarization index number. Which information is available from it? **07**
(b) Explain the drying out procedure of static machine. **07**
- OR**
- (b) Explain the mechanical endurance test performed on circuit breaker. **07**
- Q.3** (a) List out the different types of test performed on D.C. Machine to know the performance of it. Explain any Swinburne's test. **07**
(b) Explain the speed control methods of 3-phase induction motor. **07**
- OR**
- Q.3** (a) Explain the High voltage test of power transformer. **07**
(b) Explain the test for measurement of insulation resistance of 3-phase power transformer. **07**
- Q.4** (a) Explain Hopkinson's test of d.c. machine **07**
(b) Explain the temperature rise test of 3-phase induction motor. **07**
- OR**
- Q.4** (a) Explain the different methods to measure the earth resistance. **07**
(b) State the conditions of parallel operation of two alternators. Explain the dark lamp method with circuit diagram. **07**
- Q.5** (a) Explain different methods of cooling of power transformer. **07**
(b) Explain the Murry-Loop Test for the location of cable fault. **07**
- OR**
- Q.5** (a) Define slip of an induction motor. Explain the different methods to measure the slip of an induction motor. **07**
(b) Define burden of a CT. Explain how polarity test is carried out on CT? **07**
