

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VIII (OLD) EXAMINATION – WINTER 2018

Subject Code: 180901**Date: 26/11/2018****Subject Name: Commissioning Of Electrical Equipments****Time: 02:30 PM TO 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) What is the commissioning of electrical equipment? Explain the classification of different testing. **07**

(b) State the properties of good transformer oil? Explain BDV test on transformer oil. **07**

Q.2 (a) What is need of drying out test? What are the different methods for drying out of transformer? Explain. **07**

(b) Explain behavior of 3- phase induction motor under abnormal frequency condition and under single phasing condition. **07**

OR

(b) How can you find out the polarity test in case of three phase power transformer and what is the significance of it? Can we connect Dy1 & Dy11 transformer in parallel? Give your reason. **07**

Q.3 (a) How to measure the Number of poles without energizing the induction motor? Explain Experimental method. **07**

(b) Explain different methods to measure the slip of induction motor. **07**

OR

Q.3 (a) Explain the commissioning and installation steps for induction motor. **07**

(b) Give reasons and remedial steps for 3 phase slip-ring induction motor for following conditions: **07**

1) Motor fails to start.

2) Motor runs slow.

3) Motor runs hot.

Q.4 (a) Explain the commissioning steps and test for D.C. machine. **07**

(b) What are the different methods for drying out of D.C. machine? Explain any two methods in detail. **07**

OR

Q.4 (a) For the following conditions explain in detail troubles, causes and its remedies for synchronous motor: **07**

(I) Motor fails to start.

(II) Motor starts but fail to come up to full speed.

(III) Motor fails to synchronize.

(b) Explain measurement of DC and AC Resistance of Armature and Field winding of synchronous machines. **07**

Q.5 (a) Explain open circuit and short circuit tests on a synchronous motor. **07**

(b) Explain Hopkinson's test for D.C. machine. **07**

OR

Q.5 (a) How to measure the earth resistance? Explain the experiment method. **07**

(b) What are the different methods to find out cable fault? Explain one of them. **07**
