

SUBJECT CODE NO:- P-268
FACULTY OF ENGINEERING AND TECHNOLOGY
T.E.(EEP/EE/EEE) Examination May/June 2017
Testing & Maintenance of Electrical Equipment
(Revised)

[Time: Three Hours]

[Max.Marks:80]

Please check whether you have got the right question paper.

- N.B
- i) Q.No.1 and Q.No.6 are compulsory.
 - ii) Attempt any two questions from the remaining in each section.

Section A

- Q.1 Solve any five: 10
- i. Define testing.
 - ii. What is the objective of acidity testing of transformer oil?
 - iii. What is the objective of low voltage testing?
 - iv. Define tolerance
 - v. What is the objective of type testing?
 - vi. Define maintenance.
 - vii. Define objective of testing?

- Q.2
- a. What do you mean by indirect testing? Explain with any example 07
 - b. List out the probable faults in manufacturing of transformers. 08

- Q.3
- a. Draw the block diagram indicating the flow chart of manufacturing of transformer. 08
 - b. What are the reasons behind the excessive vibrations in transformer core, explain. 07

- Q.4
- a. What faults can be observed because of the reasons of blow holes in the motor body? 07
 - b. Write down the reasons of failure of 3-ph. I.M. in field, because of winding? 08

- Q.5 Write short notes on any three. 15

- i. List down the faults during manufacturing of winding in transformers?
- ii. List down the faults during operation of power transformer in operation
- iii. Significance of ISS
- iv. TPM.

Section B

- Q.6 Solve any five: Explain the reasons behind the faults listed below. 10

- i. Motor gets over heated
- ii. Rotor had bend
- iii. Motor has excessive vibrations
- iv. Bearings are jammed.
- v. Not supplying power with full capacity
- vi. Magnetic flux leakage from stator core
- vii. Motor is not rotating with required speed.

- Q.7
- a. What do you mean by duty cycle? What are the parameters, deciding the duty cycles? 07
 - b. What ISS is used for testing of motor? What is the significance this ISS. 08

- Q.8
- a. Draw the block diagram indicating working of industrial sonography & explain working of each 08

block.

- Q.9
- b. What do you meant by impregnation of paper insulating material? Explain how it is done. 07
 - a. Explain the requirement of Megger testing. How it is done? When it is required & why it is required? Explain in details. 07
 - b. What are the testing methods for testing the jammed bearing? 08
- Q.10 Write short note on any three 15
- i. Duty cycle of a motor
 - ii. Detection of internal cracks.
 - iii. Heat run testing
 - iv. DGA
 - v. HV withstand test.