

# Question Bank (I-Scheme)

Name of course: Maintenance of Electrical Equipment

Unit Test: I

Subject code: 22625(MEE)

Semester: VI

Program: EE

## Chapter 1: Safety and Prevention of Accidents (10Marks)

### 2 Marks

1. List out four different fire extinguishers
2. State four Safety signs and symbols used in industry.
3. Define the following term 1) Safety 2) Hazard
4. State the factors on which severity of electric shock depends.
5. State the need of earthing for electrical equipment.

### 4 Marks

1. State the causes of fire due to electrical reasons.
2. Explain the sequence followed in operating any one type of fire extinguisher.
3. Explain factors affecting earth resistance.
4. State which precautions to be taken to avoid fire due to electrical reasons.
5. Explain importance and purpose of earthing.
6. State the method of neutral grounding. Explain the solid grounding and state advantages of grounding.
7. List any four activities that are to be carried out for rescuing a person who has received an electric shock.

## Chapter 2: Maintenance Schedules (10Marks)

### 2 Marks

1. Explain the need of maintenance of electrical equipment.
2. Explain predictive maintenance.
3. Define routine maintenance and breakdown maintenance.

### 4 Marks

1. List out any four activities that are done during preventive maintenance of induction motor
2. State any four objectives of preventive maintenance of electrical equipment.
3. State types of maintenance. Explain each with example.

### Chapter 3: Testing and Maintenance of Rotating Machines (20Marks)

2 Marks

1. Compare direct test and indirect test on electrical machines.
2. Draw neat diagram of the foundation used for floor mounted transformer.
3. Explain routine test for measurement of D.C. resistance of winding.
4. Explain the use of filler guage.
5. List out eight different tools used in electrical maintenance.
6. List the different methods of testing of electrical equipment.
7. What data/parameters do we get from no load test and blocked rotor test on 3-ph induction motor.

4 Marks

1. What are the effects of misalignment on the performance of machine?
2. List the tests to be carried out on transformer as per IS-2026. Also state the objective of heat run test on transformer.
3. State factors involved in designing the machine foundation.
4. A 3-phase, 500 V squirrel cage. Induction motor gave the following test results: No load test: 500 V, 4 A, 750 Watts. Blocked rotor test: 100 V, 16 A, 800 Watts. Draw the circle diagram and determine: (i) efficiency (ii) p.f when motor is supplying 25 H.P.
5. Explain the significance of open circuit voltage ratio test on three phase slip induction motor.
6. Explain neat diagrams and expressions open delta method of testing of transformers.
7. Explain with neat circuit diagrams the procedures to perform no load and blocked rotor tests on three phase induction motor.
8. Explain with diagrams the synchronous impedance method of finding regulation of alternator.
9. State any one application of each tool : (i) Earth tester (ii) Megger (iii) Bearing puller (iv) Growler
10. Derive an equivalent circuit of 3 phase Induction motor step by step. Write equations related to circuit and explain in brief
11. State the objective of testing. Explain the role of BIS (Bureau of Indian Standards) in testing of electrical machines.
12. State any one application of the following tools : (i) Earth tester (ii) Megger (iii) Dial test indicator (iv) Spirit level.