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Roll No. :

324833(24)

APR-MAY 2022

B. E. (Eighth Semester) Examination, 2020

(New Scheme)

(Elect. Engg. Branch)

**INSTALLATION, MAINTENANCE & TESTING
of ELECTRICAL EQUIPMENTS**

Time Allowed : Three hours

Maximum Marks : 80

Minimum Pass Marks : 28

***Note : Attempt part (a) and any two parts from (b),
(c) and (d) of each question.***

Unit-I

1. (a) Define programmed preventive maintenance. 2
- (b) What are the recommended safety precautions against electrical shocks in HV installations? Explain. 7

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- (c) Name the site activities during the project. Explain one by one activities during all the phases of the project. 2+5
- (d) Give the safety procedures and precautions during operation and maintenance phases of the project. 3+4

Unit-II

2. (a) List the various inspection steps for a newly arrived power transformer. 2
- (b) What is the procedure of filling oil in the transformer tank? Explain transformer oil filtration plant. 3+4
- (c) What do you mean by drying out of power transformer? Explain drying out of transformer without oil. Give the procedure of drying out of transformer oil. 1+3+3
- (d) What are the typical maintenance schedule for transformer above 1000 kVA? 7

Unit-III

3. (a) What is type test? Where it is done? 1+1
- (b) What are the troubles, causes and remedial actions for outdoor circuit breakers? 2+2+3

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- (c) Explain erection, operation and maintenance of SF₆ circuit breakers. 7
- (d) Explain the trouble shooting of substation equipments. 7

Unit-IV

4. (a) How the insulation resistance measurement is done in electric motors? 2
- (b) Give the stepwise analysis of installation and commissioning of an induction motor. 7
- (c) Enlist the four standard designation for degree of cooling and explain each of them. 7
- (d) What are the various mechanical and electrical troubles causes and remedial actions for an electric motor. 7

Unit-V

5. (a) Give the names of tools used for hot line maintenance. 2
- (b) Explain various types of Hot line operations. 7
- (c) What are the safety precautions and procedures applied during Hot line maintenance? 7

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(d) Explain the five safety precautions used as per the location of accidents briefly. Where do we use dry powder type fire extinguishers and why?

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