

Register No.: 20301568

511

October 2023

Time - Three hours
(Maximum Marks: 75)

- N.B.**
1. Q.No. 8 in PART - A and Q.No. 16 in PART - B are compulsory. Answer any FOUR questions from the remaining in each PART - A and PART - B.
 2. Answer division (a) or division (b) of each question in PART - C.
 3. Each question carries 2 marks in PART - A, 3 marks in Part - B and 10 marks in PART - C.

PART - A

1. Write the action to be taken to reduce earthing resistance.
2. What are the authorized works of an electric foreman?
3. What is the need for changing transformer oil?
4. Why breather in the transformer should be checked monthly?
5. What are the symptoms to identify the end of the useful life of a lamp?
6. What is permissible overload of a motor?
7. Name the control devices of motor.
8. Define the rupturing capacity of circuit breaker

PART - B

9. What is the permissible value of the earthing resistance as per IE rules? State the parameters on which it depends.
10. How to put off electrical fire? Name the different types of fire extinguishers.
11. What are the precautions to be taken while paralleling transformers?
12. What is cyclic speed irregularity?
13. What is the difference between isolator and circuit breaker?
14. Define vacuum impregnation.
15. Give trouble shooting table for fluorescent lamp?
16. Write about insulation coordination.

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PART - C

17. (a) Explain the points to be inspected in the portable electrical equipments in a building installation.

(Or)

- (b) Explain the shutdown procedure and precautions in substations and power house.

18. (a) What action to be taken if the Transformer oil temperature rise unduly? What are the points to be checked if oil level tends to fall down?

(Or)

- (b) Explain the noise is high voltage transformer operation. Why it is caused and how to reduce it?

19. (a) Explain (i) Causes for overheating of armature and field windings of alternators (ii) Causes for circulating current in parallel alternators.

(Or)

- (b) Explain the procedure to ensure proper operation of circuit breaker in the event of fault.

20. (a) What are the causes of single phasing in induction motor? What are the effects? How can it be rectified?

(Or)

- (b) What are the points to be attended during periodical maintenance of a motor? Explain the dynamic balancing of the rotor.

21. (a) What are the precautions in erecting lighting installations?

(Or)

- (b) Explain Murray loop test for identifying cable faults with diagram.
