472 Register No.:

April 2018

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. What is equipment earthing?
2. Name the types of fire extinguishers.
3. Why drying out of power transformer is done?
4. What is auto reclose circuit breaker?
5. What are the conditions to be satisfied for parallel operation of alternator?
6. Name the type of enclosures of motors.
7. What is the permissible limit for variation of voltage and frequency as per IS standard?
8. What is stroboscopic effect in fluorescent lighting?

PART – B

9. Name the points to be inspected in building electrical installation.
10. What is transformer noise? Why it is caused? How it can be reduced?
11. Mention three causes for alternator failing to build up voltage.
12. What is the difference between isolator and circuit breaker?
13. What are the effects when one phase blows off when 3 phase induction motor is running? What precautionary equipment is available for this?
14. What are the points to attend during periodical maintenance of electrical motor?

[Turn over.....

15. What are the symptoms to identify the end of the useful life of lamp?

16. What is the essential procedure for shutdown? Who is the authorized person to effect shutdown?

PART – C

17. (a) What are the two types of ELCB? Explain both types with neat diagram.

(Or)

(b) Explain the points to be checked in switches and fuses.

18. (a) Write about daily, monthly, and annual maintenance taken on power transformer.

(Or)

(b) Explain the procedure of drying out of power transformer.

19. (a) (i) What are the causes for overheating of armature and field winding of alternator?

(ii) What are the causes for circulating current between alternators in parallel?

(Or)

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

20. (a) Explain the function of thermal overload release and low volt release. What action to be taken if overload mechanism trips frequently?

(Or)

(b) Explain the significance of balancing of rotor. How balancing is achieved?

21. (a) Write the basic steps in designing lighting installation.

(Or)

(b) How to identify cable fault location? Explain any two methods.
