

564

October 2023

Time - Three hours
(Maximum Marks: 100)

- [N.B. 1. Answer all questions under Part-A. Each question carries 3 marks.
2. Answer all the questions either (A) or (B) in Part-B. Each question carries 14 marks.]

PART - A

1. What are the functions of commutator and brush in DC Generator?
2. What is lap winding?
3. Write the principle of DC motor.
4. What are the advantages and disadvantages of Swinburne's test?
5. What are the transformer equivalent circuit constants?
6. What is dry type transformer? List its types.
7. Mention the different connections in a three phase transformer.
8. State the necessity of cooling in transformer.
9. State any three advantages of preventive maintenance.
10. What is earthing?

PART - B

11. (a) State and explain Faraday's laws of electromagnetic induction, Fleming's Right Hand rule and Lenz's law.

(Or)

- (b) Explain the load characteristics of DC compound generator.

12. (a) With a connection diagram explain the working of DC motor.

(Or)

- (b) Explain the various speed control methods for DC shunt motor.

13. (a) Explain the constructional details of core and shell type of transformer.

(Or)

- (b) Explain how efficiency of a transformer is determined by conducting OC and SC tests.

14. (a) Explain the construction and types of connections of three phase transformer.

(Or)

- (b) Explain with a neat diagram the operation of ON- load tap changer.

15. (a) Explain the different types of maintenance.

(Or)

- (b) Explain the working of transformer oil tester with a neat sketch.
