

767

October 2023

Time - Three hours
(Maximum Marks: 100)

- (11) LH3 FEE (10)
- [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. State the advantages of rotating magnetic field system in alternators.
2. What are the effects of pitch factor?
3. What is meant by effective resistance?
4. What is meant by alternator on infinite bus bar?
5. What is meant by torque in synchronous watts?
6. Which type of starters is used for squirrel cage and slip ring induction motors?
7. What are the types of capacitor type motors?
8. Define haunting. How it is prevented?
9. What are the points to be checked during annual maintenance of induction motors?
10. What is the necessity for varnishing induction motor?

PART - B

11. (a) Explain the constructional details of alternator.
(Or)
(b) Explain the methods of obtaining sine wave in a salient pole alternator.
12. (a) Explain the necessity, conditions and advantages of parallel operation of alternator.
(Or)
(b) Explain the effect of armature reaction of alternators for various power factor loads.
13. (a) Explain with neat sketches the construction details of squirrel cage induction motor.
(Or)
(b) Explain with a neat diagram the working of a star delta starter. State its merits and demerits.
14. (a) Explain the construction, working and speed torque characteristics of a capacitor start induction motor.
(Or)
(b) Explain the principle of operation of a synchronous motor.
15. (a) Explain the operation of a single phase preventer with a neat sketch.
(Or)
(b) Explain the remedial actions to be taken for any seven troubles that occurs in an induction motor.
