

No. of Printed Pages : 4
Roll No.

220942

4th Sem / Electrical
Subject : Electrical Machines -II

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

- Q.1 Value of slip at synchronous speed is equal to.
a) 0 b) 1
c) -1 d) 2
- Q.2 Induction motor runs _____ the synchronous speed.
a) Above b) equal
c) Below d) None of the above
- Q.3 Two alternators can operate in parallel when their
a) Voltages are equal
b) Frequency is same
c) Phase sequence is same
d) All of the above

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- Q.4 D.O.L starter is used for starting
a) Servo motor b) Induction motor
c) Synchronous Motor d) Stepper motor
- Q.5 For domestic applications which motor is mostly used.
a) Single phase Induction motor
b) Three phase Induction motor
c) Servo motor
d) Synchronous motor
- Q.6 Universal motor can work on
a) A.C supply
b) D.C supply
c) Both A.C and D.C supply
d) None of the above

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 Value of slip at time of start = _____.
- Q.8 Synchronous motor runs at _____ speed.
- Q.9 If frequency of A.C supply is increased then speed of induction motor will Increase / Decrease.
- Q.10 In 3ϕ I.M when $R_2 = SX_2$ _____ torque is produced

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Q.11 Synchronous motor is self starting (True / False).

Q.12 Cogging and crawling occurs in _____ motor.

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 Explain torque slip characteristics of 3Ø & Induction motor.

Q.14 Explain necessary conditions for parallel operation of Alternators.

Q.15 What is cause of hunting and it's prevention.

Q.16 Explain cooling of synchronous machine.

Q.17 What is slip & it's significance for 3Ø Induction motor.

Q.18 Explain cogging in Induction motor.

Q.19 Explain shaded pole motor .

Q.20 Explain split phase capacitor start single phase induction motor.

Q.21 Explain working principle of linear induction motor.

Q.22 Explain two methods to control speed of 3Ø Induction motor.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 Explain principle construction and working of 3Ø synchronous motor.

Q.24 Explain principle construction and working of 3Ø Induction motor

Q.25 Write note on

a) Servo motor

b) Stepper motor.