

No. of Printed Pages : 4
Roll No.

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**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

- 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 $3\varnothing$ I.M when $R_2 = SX_2$ _____ torque is produced

(1)

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(2)

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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 its prevention.

Q.16 Explain cooling of synchronous machine.

Q.17 What is slip & its 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.

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(3400)

(4)

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