No. of Printed Pages : 4 220942
Roll No. .....

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 time of start equal to.

a) 0 b) 1

c) 2 d) -1

Q.2 Synchronous motor runs at _____ speed.

a) Synchronous speed

b) Below synchronous speed

c) Above synchronous speed

d) None of the above

Q.3 Maximum torque is produced in 3f Induction motor when.

a) $R_2 = X_2$ b) $R_2 > X_2$

c) $R_2 < X_2$ d) $R_2 = SX_2$

Q.4 Full form of DOL starter.

a) Direct Over Load Starter

b) Direct Off Line Starter

c) Direct on line Starter

d) Direct on Load Starter

Q.5 Which motor is capacitor start and run motor.

a) Single phase I.M.

b) Three phase Induction motor

c) Stepper

d) Synchronous motor.

Q.6 Servo motor is mainly used in

a) Heavy load b) Light load

c) Control System d) None of the above

SECTION-B

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

Q.7 Valve of slip at synchronous speed=_____

Q.8 Synchronous speed N_s =_____ rpm.

Q.9 Star Delta starter is used for starting _____ motors.

Q.10 Synchronous condenser has lagging power factor (True/False)

Q.11 Single phase Induction motor is self starting. (True/False)

Q.12 Hunting occurs in_____ motors.

SECTION-C

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

Q.13 Explain Servo motor.

Q.14 Explain any one method to start. 3f synchronous motor.

Q.15 Explain the concept of coil span factor

Q.16 Explain application of synchronous machine as a synchronous condenser.

Q.17 Explain power flow diagram of an Induction motor.

Q.18 Explain crawling in induction motor.

Q.19 Explain split phase capacitor run single phase induction motor.

Q.20 Explain universal motor.

Q.21 Explain torque slip characteristics of 3f Induction motor.

Q.22 Explain energy efficient motor.

SECTION-D

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

Q.23 Explain main constructional feature of synchronous machine and its working.

Q.24 Explain various methods to control speed of 3f Induction motor.

Q.25 Write note on

a) Shaded pole motor

b) Reluctance start motor.