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220942

**4th Sem.**  
**Branch : Electrical**  
**Sub. Electrical Machines-II**

**Time : 3 Hrs.**

**M.M. : 60**

**SECTION-A**

**Note: Multiple type Questions. All Questions are compulsory. (6x1=6)**

Q.1 What is the frequency of DC? (CO1)

- a) 60 hz                      b) 0 hz  
c) 25 hz                      d) 50 hz

Q.2 The value of slip at synchronous speed is (CO2)

- a) 0                              b) 1  
c) 2                              c) 0.5

Q.3 The stator frame of induction motor is made of (CO3)

- a) Cast iron                      b) Silicon steel  
c) Nickel                              d) Silver

Q.4 The Universal motor can work on (CO4)

- a) AC                              b) DC  
c) AC & DC                      d) NONE

Q.5 The capacity of 3-f Induction motor will so (CO2)

- a) KV                              b) KVA  
c) HP                              d) None of above

Q.6 The maximum synchronous speed of motor for 50Hz frequency. (CO2)

- a) 750RPM                      b) 1500 RPM  
c) 3000 RPM                      d) None of above

**SECTION-B**

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

Q.7 Define Armature reaction. (CO1)

Q.8 Define stator. (CO2)

Q.9 Define power factor. (CO1)

Q.10 The condition for maximum efficiency of 3-f Induction motors variable losses. (CO4)

Q.11 Define hunting. (CO1)

Q.12 Define slip. (CO1)

### SECTION-C

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

- Q.13 Explain concept of distribution and coil span factor. (CO1)
- Q.14 Explain production of magnetic field in single phase induction motor brief. (CO3)
- Q.15 Discuss the concept of cogging in induction motor. (CO2)
- Q.16 Explain in brief methods of speed control of 3-f Induction motor. (CO3)
- Q.17 Explain in brief synchroscope method of synchronization of alternator with bus bar (CO2)
- Q.18 Write applications of 1-phase induction motor. (CO3)
- Q.19 Explain working of 3 phase induction motor. (CO2)
- Q.20 Discuss and draw the Torque-Slip curve of 3-f Induction motor. (CO2)
- Q.21 Explain the working of stepper motor. (CO4)
- Q.22 Write a short note on universal motor? (CO4)

### SECTION-D

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

- Q.23 Explain the construction of single phase induction motor. (CO3)
- Q.24 Discuss about starting methods of 3 phase synchronous motors. (CO1)
- Q.25 Make a list of methods of starting of 3-f Induction motor. Explain any one with neat diagrams. (CO2)