Q.18 How can we control the speed of dc servo motor ?

Q.19 Give the expression for efficiency of transformer?

Q.20 Explain the function of commutator in a dc motor.

Q.21 State the function of damper winding in synchronous machine.

Q.22 What is double field revolving theory?

SECTION-D

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

Q.23 Give the difference between motor and generator.

Q.24 Draw and explain the characteristics of dc series and shunt motor.

Q.25 Describe the constructional detail of an induction motor.

No. of Printed Pages : 4 221534
Roll No. .....

3rd Sem / Instrumentation & Control

Subject : Electrical Machines

Time : 3 Hrs. M.M. : 60

SECTION-A

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

Q.1 Core of transformer is generally made of :

a) Mild steel

b) silicon Steel

c) Non magnetic material

d) Cast iron

Q.2 In electromechanical energy conversion device, the angle between rotor field and main magnetic field is called:

a) Mechanical angle b) Electrical angle

c) Torque angle d) None of these

Q.3 A d.c series motor is suited for driving a :

a) Lathe

b) Machine Tool

c) crane

d) Constant Speed Load

Q.4 Synchronous speed of induction motor depends on :

a) Frequency b) No. of stator poles

c) Applied voltage d) Both a & b

Q.5 Rotor of a stepper motor does not have :

a) Winding b) Commutator

c) Brushes d) All of these

Q.6 A refrigerator uses :

a) DC series motor

b) Universal motor

c) DC shunt motor

d) Single phase induction motor

SECTION-B

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

Q.7 The ratio of transformer is denoted by_____.

Q.8 Define the motor.

Q.9 Armature of dc machine is laminated to reduce_____.

Q.10 What is power factor ?

Q.11 Define step angle.

Q.12 What is universal motor ?

SECTION-C

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

Q.13 State Faraday's law of electromagnetic induction.

Q.14 Explain losses of transformer.

Q.15 Explain Lenz law.

Q.16 What is significance of back emf?

Q.17 Stator of an induction motor is laminated.Why?