

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Question Bank

Course: T.Y. B. Tech in Instrumentation Engineering

Sem: VI

Subject Name :- Power Electronics and Drives

Subject Code: BTINC603

UNIT 1

Que.1 Draw and explain VI characteristics of SCR.

Que.2 State and explain dynamic characteristics of instruments.

Que.3 Give the classification of errors in detail.

Que.4 What is calibration? Why it is required?

Que.5 Why input impedance should be high and output impedance should be low?

Que.6 Explain loading effect.

UNIT 2

Que.1 . Explain Electrical drive system.

Que.2 Explain dynamics of electrical drive.

Que.3 What is dynamic of electrical drives?

Que.4 What do you mean by steady state stability?

Que.5 What is Four Quadrant Operation of DC Motor?

Que.6 Give the classification of load torque.

UNIT 3

Que.1 Draw and explain single phase half wave converter drive.

Que.2 Draw and explain single phase semi converter drive.

Que.3 Draw and explain single phase full converter drive.

Que.4 Explain three phase half wave converter drives.

Que.5 Write note types of braking control in DC-DC converter drives..

Que.6 What is closed loop control of DC drive?.

UNIT 4

Que.1 Explain the principle of on off control technique.

Que.2 Explain the principle of phase control of AC voltage controller with suitable circuit and waveforms.

Que.3 Explain the principle of three phase control of AC voltage controller with suitable circuit and waveforms.

Que.4 Explain single phase Cycloconverter operation with suitable circuit diagram and waveforms.

Que.5 Explain three phase Cycloconverter operation with suitable circuit diagram and waveforms..

UNIT 5

Que.1 Explain stator voltage control of an induction motor.

Que.2 What is rotor resistance control of an induction motor?

Que.3 Explain closed loop control of induction motor.

Que.4 Explain speed control of induction motor by frequency control.

Que.5 Write note on Slip energy recovery of an induction motor.

Que.6 Explain Voltage source inverter control of an induction motor drive.

UNIT 6

Que.1 What is the working principle of synchronous motor?

Que.2 Explain speed control of synchronous motor drive.

Que.3 Explain self-control synchronous motor drive using load commutated thyrister inverter.

Que.4 How the variable frequency control is used for synchronous motor?

Que.5 Give applications of synchronous motor.