

IES COLLEGE OF TECHNOLOGY, BHOPAL

M.E./ M.Tech (1st SEM) Assignment -1(Unit 1 & 2)

Power electronic device and phase control (MEPE-102)

Note: 1.Question should be written in plain A-4 Size Paper.

2. Minimum 300 Word Limit for each Question.

3. Assignment should be submitted in stick file.

Date of Assignment: 20/10/2014

Date of Submission: 22/11/2014

Q.1	Explain the switching characteristic of IGBT with neat circuit diagram and waveforms. (R.G.P.V. June 2014)	
Q.2	What are the turn on methods to turn on SCR. Explain it (R.G.P.V. June 2014)	
Q.3	Write short notes on : Snubber circuit for BJT	(R.G.P.V. June 2013)
Q.4	Commutation circuit of SCR	(R.G.P.V. June 2013)
Q.5	Describe the operation of multiphase choppers.	(R.G.P.V. Dec.2010)

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M.E./ M.Tech (1st SEM) Assignment -1(Unit 1& 2)

ADVANCE CONTROL SYSTEM(MEPE-103)

Note: 1.Question should be written in plain A-4 Size Paper.

2. Minimum 300 Word Limit for each Question.

3. Assignment should be submitted in stick file.

Date of Assignment: 20/10/2014

Date of Submission: 22/11/2014

Q.1	Explain state space method.	(R.G.P.V. Dec 2012)
Q.2	Explain the principles of root loci.	(R.G.P.V. Dec 2010)
Q.3	Explain the effect of load disturbance upon control action.	(R.G.P.V. Dec 2010)
Q.4	State and prove optimal control problem based on dynamic programming in discrete time system. (R.G.P.V. June 2014)	
Q.5	Explain the different methods used to find the state feedback gain matrix and compare them.	(R.G.P.V. Dec.2014)

IES COLLEGE OF TECHNOLOGY, BHOPAL
M.E./ M.Tech. (1st SEM) Assignment 1(Unit 1&2)
FORCED COMMUTATION CIRCUIT (MEPE-104)

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3. Assignment should be submitted in stick file.

Date of Assignment: 20/10/2014

Date of Submission: 22/11/2014

Q.1	Draw and explain the speed torque characteristic of three phase induction motor in three mode of operation. (R.G.P.V. June 2014)	
Q.2	Derive the rating and data sheet. (R.G.P.V. Dec 2010)	
Q.3	Discuss the reduction in harmonics in the inverter output voltage by the stepped wave inverter with diagram. (R.G.P.V. June 2014)	
Q.4	Explain in brief with diagram . R.F. generators Laser power supply High frequency sources for fluorescent lamps. (R.G.P.V. Dec 2010)	
Q.5	Explain the phase sequence control of voltage with diagram. (R.G.P.V. Dec.2011)	

IES COLLEGE OF TECHNOLOGY, BHOPAL
M.E./ M.Tech (1st SEM) Assignment -1(Unit 1 & 2)
ELECTRIC DRIVE AND CIRCUITS (MEPE-105)

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3. Assignment should be submitted in stick file.

Date of Assignment: 20/10/2014

Date of Submission: 22/11/2014

Q.1	Explain the multi-quadrant operation of motor drive (R.G.P.V. June 2014)	
Q.2	Describe the speed control of three phase induction motor. (R.G.P.V. Dec 2010)	
Q.3	Describe the adjustable speed control synchronous motor operate in self control mode with block diagram. (R.G.P.V. June 2014)	
Q.4	Give the analysis and transient behavior of three phase induction motor drive with details.	

(R.G.P.V. June 2013)

Q.5

Draw and explain the speed torque characteristic of three phase induction motor in three mode of operation.
(R.G.P.V. Dec.2014)