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	Describe completely the points in the queuing system.	Mar., 2010
Q.2	Find out the probability distribution function of arrival that is of inter arrival times.	Mar. ,2010
Q.3	Suppose these are two market products of brand A and B respectively. Let each of these two brands have exactly 50 % of the total market in same period and let market be of fixed size. The transition matrix is given below. To $\qquad A \quad B$ From $\begin{matrix} A \\ B \end{matrix} \begin{bmatrix} 0.9 & 0.1 \\ 0.5 & 0.5 \end{bmatrix}$ If the initial market share break down is 50% for each brand. Then determine their market shares in the steady state.	June, 2014
Q.4	Define: Properties of Fuzzy sets. Fuzzy relations composition of fuzzy relations. Apply the fuzzy modes ponens rule to deduce rotation is quite slow given a) If the speed is high then the rotation is slow b) The speed is very high.	Dec., 2010
Q.5	Define: a) Stochastic process b) Markov process c) Transition probability d) Transition diagram	Mar., 2010

Date of Assignment:20**/10/2014**   **Date of Submission: 10/11/2014**

Q.1	Describe the Philips heffron model.	Dec., 2012
Q.2	Discuss the basic structure and tuning of power system stabilizers.	Dec.,2012

Q.3	Explain the classical model of synchronous machine for stability studies. What are the short-coming of classical model?	Dec., 2010
Q.4	Describe the system state matrix including power system stabilizers.	March,2009
Q.5	Describe the prime mover control system.	Dec., 2011

IES COLLEGE OF TECHNOLOGY, BHOPAL

M.E. / M.Tech. (1th SEM) Assignment -2
Advanced power Systems Projection Relay (MEPS-103)
Units Cover-(III-V)

Date of Assignment: 20/10/2014   **Date of Submission: 10/11/2014**

Q.1	Explain the principle of distance relaying applied to protection of radial transmission line. Distinguish between reactance, impedance and mho relays as their application to distance protection.	Jun., 2014
Q.2	Explain the principle of differential system of protection applied to a power transformer. What are the difficulties experienced and how they can be resolved?	Jun. ,2014
Q.3	Describe the principle of bus bar protection based on voltage differential system. How does it respond to saturation of CT's for external fault and internal fault?	Jun., 2014
Q.4	A star-delta, 11 Kv/6.6 Kv transformer is protected by means of differential protection system. The 6.6 Kv delta is connected side has CT ratio 600/5. Calculate CT ratio of HT side.	March., 2010

Q.5	Write short note on any three of the following:
	   a) Static overcurrent relay.
	   b) Static differential protection of power system.
	   c) Different types of digital and computer aided relay.
	   d) Distance protective schemes.
		Mar., 2010

IES COLLEGE OF TECHNOLOGY, BHOPAL
M.E. / M.Tech. (1th SEM) Assignment -2
Power Electronics Application to Power System (MEPS-104)
Units Cover-(III-V)

Date of Assignment: 20/10/2014   **Date of Submission: 10/11/2014**

Q.1	Explain the effect of shunt compensation in power system with necessary derivation.	Jun., 2014
Q.2	Describe solution of load flow using N-R method with the help of flowcharts.	Jun.,2014
Q.3	Explain basic principle of FACTS in the transmission of power. Compare the performance of TSC and SVCs.	Mar., 2010

Q.4	Write notes on series and shunt compensation in transmission of power system with examples and its characteristics.	Dec.,2011

Q.5	Write shorts notes on the following:
	  a) Serge impedance loading.
	  b) Proximity indicators for voltage stability.
	  c) TCSC.
		Dec., 2011

IES COLLEGE OF TECHNOLOGY, BHOPAL

M.E./ M.Tech.(1th SEM) Assignment -2
Advanced course in electrical machine (MEPS-105)
Units Cover- (III-V)

Date of Assignment:20/10/2014   **Date of Submission**:10/11/2014

Q.1	Developed a simplified phasor diagram of a synchronous machine for load flow analysis in power systems.	Dec., 2010
Q.2	From the concept of cross field theory discuss the operation of single phase induction motor.	Mar. ,2010
Q.3	What are the various parameters of a synchronous machine? How are these parameters modified for cylindrical rotor synchronous machine? Drive the expression for armature to field mutual inductance	Dec., 2011
Q.4	Developed a torque equation of single-phase induction motor using cross field theory.	Mar., 2009

Q.5	Write short notes on any three of the following:
	  a) Approximate theory
	  b) Generalized model of Schrage motor.
	  c) Slip test on synchronous machine
	  d) Limitation of generalized theory of machines.
		Dec., 2011