Internal Assesment Test - II

Sub:	POWER SYSTEM OPERATION AND CONTROL						Code:		10EE82
Date:	19/ 04/ 2018	Duration:	90 mins	Max Marks:	50	Sem:	8th	Branch:	EEE

Answer Any FIVE FULL Questions

		Marks	OBE	
			CO	RBT
1	Explain the tie-line bias control of two area load frequency control, with the help of block diagram and necessary equations.	[10]	CO2	L2
2	Explain with suitable block diagram, the mathematical modeling of AVR.	[10]	CO2	L2
3(a)	Write notes on basic generator control loops, and cross coupling between loops.	[05]	CO2	L2
(b)	Determine the primary ALFC loop parameters for control area having the following data. Total rated area capacity Pr = 2000 MW Inertia Constant H = 5.0 s Frequency f_0 = 60Hz Normal opearating load = 1000 MW	[05]	CO2	L3
4(a)	Draw the flow chart of contingency analysis using sensitivity factors.	[05]	CO5	L2
(b)	A 100MVA alternator operating on rated load,upf, at a frequency of 50Hz.The load is suddenly reduced to 50MW. Due to time lag in the governor system, the steam valve begins to close after 0.4 sec. Determine the change in frequency that occurs in this time. Take H = 5 kW-sec/kVA of generator capacity.	[05]	CO2	L3
5	Explain how mathematical model of speed governor system is developed for Automatic Generation Control(Automatic Load Frequency Control).	[10]	CO2	L2
6	Explain the Security-Constrained Optimal Power Flow (SCOPF) function of power system security with an example.	[10]	CO5	L2
7	With the help of flow chart , explain the contingency selection procedure.	[10]	CO5	L2

******All the Best*****