S. No.	Name of the Experiment
1	To determine the critical clearing angle, critical clearing time for the given system when a 3 phase fault occurs at A, which when cleared leaves both lines intact. Verify the results by MATLAB command and plot the power angle curve. The system consists of a 60Hz synchronous generator which has a transient reactance of 0.2 pu and an inertia constant of 5.66 MJ/MVA. It is connected to an infinite bus through a transformer and a double circuit transmission line as shown in Fig.8. Resistances & Reactances are expressed on a common MVA base & marked on the diagram. The generator is delivering a real power of 0.77 pu tobus bar 1. The infinite bus voltage is 1.0 pu, the generator excitation is 1.25 pu.
2	To determine the critical clearing angle, critical clearing time for the given system when a 3 phase fault occurs at the middle of the one line (line B) which when cleared isolated the faulted line. Verify the results by MATLAB command and display the power angle curve. The system consists of a 60Hz synchronous generator which has a transient reactance of 0.2 pu and an inertia constant of 5.66 MJ/MVA. It is connected to an infinite bus through a transformer and a double circuit transmission line as shown in Fig.9. Resistances & Reactances are expressed on a common MVA base & marked on the diagram. The generator is delivering a real power of 0.77 pu to bus bar 1. The infinite bus voltage is 1.0 pu, the generator excitation is 1.25 pu.
3	To obtain the swing curve for the given system by using Modified Euler's method when a 3 phase fault occurs at the middle of the one line and is cleared by isolating the faulted line. Obtain the numerical solution for 1.5 sec for a step size $\Delta t = 0.01$ sec when fault is cleared in i) 0.2 sec. ii)0.3 sec. iii)0.4 sec. Also draw the flow chart of Euler's and Modified Euler's method. The system consists of a 60Hz synchronous generator which has a transient reactance of 0.2 pu and an inertia constant of 5.66 MJ/MVA. It is connected to an infinite bus through a transformer and a double circuit transmission line as shown in Fig.10. Resistances & Reactances are expressed on a common MVA base & marked on the diagram. The generator is delivering a real power of 0.77 pu to bus bar 1. The infinite bus voltage is 1.0 pu, the generator excitation is 1.25 pu.
4	To build a 9 bus system and perform load flow study in PSS/E
5	To build a two area system in PSS/E and perform load flow study.
6	Transient stability studies in PSS/E