

Department of Electrical Engineering

Assignment

Date: 23/06/2020

Course Details

Course Title: Power System Analysis
 Instructor: _____

Module: 6th
 Total Marks: 50

Student Details

Name: _____

Student ID: _____

Q1.	Write in Matrix form the node equations necessary to solve for the voltages of the numbered buses of your own choice. The network is equivalent to the following two emfs sources i.e. $E_a = 2.5 \angle 0^\circ$ $E_b = 4.5 \angle 0^\circ$ all in Per Unit.	Marks 10 CLO 1
Q2.	For a network of three independent nodes, construct impedance Z Bus for the given network. Mention the driving point impedance of the nodes, transfer impedance of the nodes.	Marks 10 CLO 1
.Q3.	Consider a generator of 10KW feeding to 11kv Busbar injecting real power P_{GK} , and reactive power Q_{GK} , Load of 20KW is connected which takes real power of P_{LK} and reactive power of Q_{LK} from the Busbar. This Busbar is also connected with other bus bars like bus i, j and m through lines. Develop a power flow equation at any bus in a power system.	Marks 10 CLO 2
Q4.	In power flow solution we know the total load and generation but still problem occurs like losses in the system. How can we overcome these losses? Support your answer with proper example and Load Curves.	Marks 10 CLO 2
Q5.	With a neat flow chart explain the computational procedure, foe load flow solution using Gauss-Seidal method when the system contains all types of busses.	Marks 10 CLO 2

*****GOOD LUCK*****