Sanjay Ghodawat University, Kolhapur

2020-21

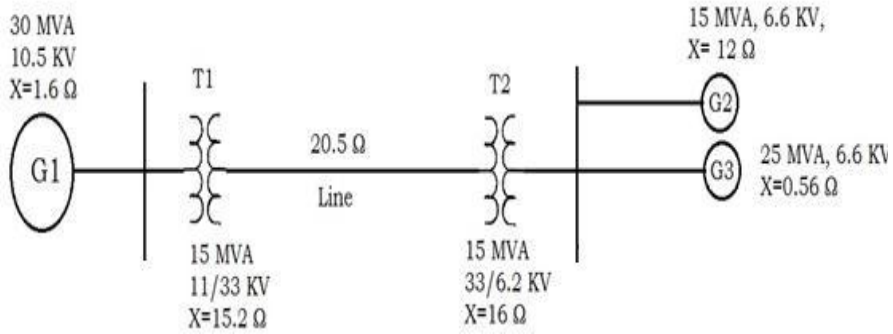
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EXM/P/09/00

Year and Program: TY Electrical Engineering	**School of Technology**	**Department: Electrical Engineering**
Course Code: ELE 305	**Course Title: Power System Analysis**	**Semester : V**
Day : Monday **Date : 21.12.2020**	**End Semester Examination**	**Time : 2 Hrs.** **Max Marks : 50**

Instructions: 1) All Questions are compulsory.

		Marks	Bloom's Level	CO
Q.1	**Answer the following (any two)**			
a)	Explain with suitable example OLD (One Line Diagram), Impedance & Reactance Diagram.	8	L2	CO1
b)	Draw a per unit reactance diagram for given power system and choose a common 3 phase, 50 MVA and voltage base of 33 KV in line circuit	8	L3	CO1



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c)	Explain effect of transient on a Synchronous Machine under no load condition.	8	L2	CO2
Q.2	**Answer the following (any two)**			
a)	Derive the expression of short circuit current of a transmission line on transient condition.	8	L3	CO2
b)	Draw and explain in short Networks of Transformers with various connections. (Minimum 8).	8	L3	CO3
c)	In a three phase four wire system the currents in the lines a, b, and c under abnormal conditions of loading were as follows Ia = 100<30° A, Ib = 50<300° A, Ic = 30<180° A. Find the symmetrical components and the neutral current.	8	L3	CO3

Q.3 Answer the following (any two)

a)	Develop an equivalent network showing the interconnection of sequence networks to stimulate a LG fault.	9	L3	CO4
b)	Draw and explain one conductor open and two conductor open fault.	9	L3	CO4
c)	Explain classification of power system stability.	9	L2	CO4

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