Sanjay Ghodawat University, Kolhapur

2020-21

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EXM/P/09/00

Year and Program: T. Y. B. Tech	**School of Technology**	**Department: Electrical & Electronics Engg**
Course Code: EET303	**Course Title: Power System Analysis**	**Semester : V**
Day : Wednesday **Date: 16.12.2020**	**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 10 KV in Generator circuit.	8	L3	CO1

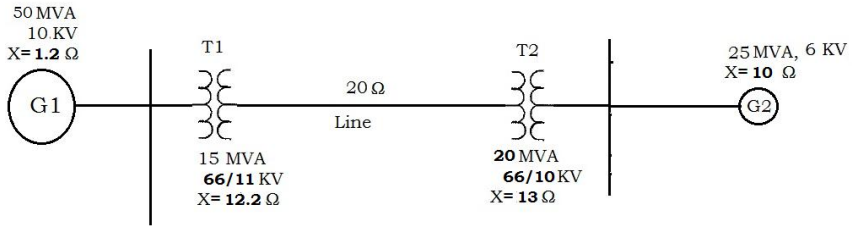


Fig. 1 b

c)	Derive the expression of short circuit current of a transmission line on transient condition.	8	L3	CO3
Q.2	**Answer the following (any two) –**			
a)	Develop an equivalent network showing the interconnection of sequence networks to stimulate a LG fault.	8	L3	CO2
b)	Draw and explain one conductor open and two conductor open fault.	8	L3	CO2
c)	Write a short note on following points 1. Substation Grounding 2. Role of Substations in Smart Grids	8	L2	CO3
Q.3	**Answer the following (any two) –**			
a)	Explain classification of power system stability.	9	L2	CO3
b)	Derive swing equation for a synchronous machine.	9	L4	CO3

c) Write a short note on following points (Any Two) 9 L3 CO3

1. High Speed Fault clearing
2. Reduction of transmission system reactance
3. Controlled system Separation & Load Shedding

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