
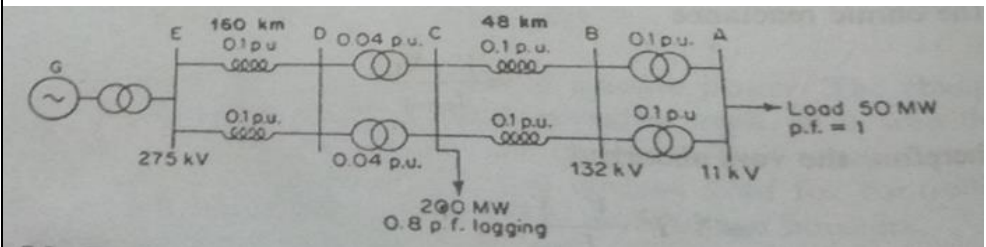


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Internal Assessment Test 3 – May-2024									
Sub:	Power System operation & Control						Code:	18EE81	
Date:	11/05/2024	Duration:	90 mins	Max Marks:	50	Sem:	8	Section:	A & B
Note: Answer any FIVE FULL Questions Sketch neat figures wherever necessary. Answer to the point. Good luck!									

		Marks	OBE	
			CO	RBT
1.	Explain about the generation and absorption of reactive power in electrical power systems	[10]	CO5	L2
2.	With the help of flowchart explain contingency analysis	[10]	CO6	L3
3.	Explain about linear sensitivity factors	[10]	CO6	L2
4.	Briefly explain the different methods of reactive power injection in power systems	[10]	CO5	L2
5.	In the radial transmission system shown in fig ,all pu values are referred to the voltage buses shown and 100 MVA .Determine the power factor at which the generator must operate. 	[10]	CO2	L4
6.	Explain about the factors affecting power system security	[10]	CO6	L2

CI

CCI

HOD

Solutions

Question #	Description	Marks Distribution	Max. Marks
1	Generation & Absorption of reactive power Generator Transformer Transmission Line Load	3M 3M 2M 2M	10M
2	Equivalent circuit Calculation Final reactive power	3M 3M 4M	10M
3	Contingency Analysis Explanation Flowchart	6M 4M	10M
4	Generator factors Transmission factors	5M 5M	10M
5	P1Q AC load flow Flowchart	3M 3M 4M	10M
6	Tap changing Booster Transformer Phase shifting Transformer	3M 3M 4M	10M

