



4 Define and explain apparent power, real, and reactive powers of an AC circuit.

CO2 L2

[10M]

	OR		
5	Define the following with respect to sinusoidal quantity: i) RMS Value ii) Average Value iii) Form factor iv) Peak factor v) Frequency	[10M]	CO2 L1
6	Explain the construction and working principle of a single phase Transformer.	[10M]	CO3 L2
	OR		
7	Derive the EMF equation of transformer? Hence derive the voltage ratio.	[10M]	CO3 L3
8	What is back EMF? Explain its significance. Determine the torque equation of DC motor.	[10M]	CO4 L2
	OR		
9	Explain working principle and construction of DC generator motor.	[10M]	CO4 L2
10	Explain Working of Earth Leakage Circuit Breaker (ELCB).	[10M]	CO5 L2
	OR		
11	Calculate the electricity bill amount for a month of March, if 5 bulbs of 40 W for 5 h, 6 tube lights of 60 W for 5 h, a TV of 100 W for 6 h, a washing machine of 400 W for 2 h, a water pump of 0.5 HP for 30 minutes are used per day. The cost per unit is Rs 3.50. Consider 1 HP = 746 Watts	[10M]	CO5 L3