



summers

Course Code: ET 273

Course Title: Power Transmission & Distribution

Prerequisite: Electrical Network Analysis

Instructor: Engr. Sanaullah Ahmad

Module: 7 Program: BEE Total Marks: 50 Time Allowed: 120 min

Note: Attempt all questions.CLO: Course learning outcome

Q1	(a)	A single phase transmission line has two parallel conductors 2 m apart, the radius of each conductor being 1.2 cm. Calculate the loop inductance per km length of the line?	Marks (10) CLO 3
	(b)	A single phase overhead transmission line delivers 1100 kW at 33 kV at 0.8 p.f. lagging. The total resistance and inductive reactance of the line are 10 Ω and 15 Ω respectively. Determine: (i) sending end voltage (ii) sending end power factor and (iii) transmission efficiency.	Marks (10) CLO 3
Q2	(a)	Describe electricity tariff, explain different classes of tariff with examples?	Marks (15) CLO 4
.	(b)	Single phase a.c. distributor AB 300 metres long is fed from end A and is loaded as under : (i) 100 A at 0.707 p.f. lagging 200 m from point A (ii) 200 A at 0.8 p.f. lagging 300 m from point A. The load resistance and reactance of the distributor is 0.2 ohm and 0.1ohm per kilometre. Calculate the total voltage drop in the distributor. The load power factors refer to the voltage at the far end.	Marks (15) CLO 3

