

**PRAGATI ENGINEERING COLLEGE: SURAMPALEM  
(AUTONOMOUS)  
M.Tech II Semester Regular/ Supplementary Examinations, July – 2024**

**ELECTRICAL DISTRIBUTION SYSTEMS  
(PE&ED)**

Time: 3 hours

Max. Marks: 60

**Answer any FIVE questions  
All questions carry EQUAL marks**

Q.NO.		Question	BTL	CO	Marks
1.	a.	Explain the relationship between the Load factor & Loss factor	K2	CO1	6M
	b.	Solve i) Maximum demand ii) Units generated per day iii) Average load & iv) Load factor for a generating station having the following daily load cycle. <b>Time (Hours):</b> 0-6    6-10    10-12    12-16    16-20    20-24 <b>Load (MW) :</b> 40    50    60    50    70    40	K3	CO1	6M
2.	a.	Explain various factors to be considered for optimal location of substations	K2	CO2	6M
	b.	Illustrate service area with 'n' primary feeders	K2	CO2	6M
3	a.	Describe Loop type primary feeders	K2	CO2	6M
	b.	Illustrate design practice of the secondary distribution system	K2	CO2	6M
4	a.	Relate the voltage drop and power loss of any one Non - three phase distribution systems and compare with the Three phase balanced system	K2	CO3	6M
	b.	Describe the advantages of three phase balanced primary lines	K2	CO3	6M
5.	a.	Describe the objectives of distribution system protection	K2	CO4	6M
	b.	Explain various types of coordinated operation of protective devices	K2	CO4	6M
6.	a	Explain various types of common faults & procedure for fault calculation	K2	CO4	6M
	b	Explain the principle of operation of line sectionalizer	K2	CO4	6M
7	a	Describe any one method of voltage control	K2	CO5	6M
	b	Describe the procedure to determine the best capacitor location	K2	CO5	6M
8	a	Explain the effect of series capacitor	K2	CO5	6M
	b	Explain line drop compensation	K2	CO5	6M