R20 Regulation *Subject code: 3E8BA*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech VIII Semester Supplementary Examinations, May 2026

ELECTRICAL DISTRIBUTION SYSTEMS

(EEE)

Maximum Marks: 70 Date: 06.05.2026 Duration: 3 hours

Note: **1.This question paper contains two parts A and B.**
2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

	Part-A			
All the following questions carry equal marks (10X2M=20 Marks)		Marks	CO	Bloom Tx
1	Define Load growth.	2M	CO1	BT1
2	Draw the characteristics of Residential Load.	2M	CO1	BT1
3	Define Loss factor.	2M	CO2	BT1
4	Write the primary feeder used in power system.	2M	CO2	BT1
5	List objectives of distribution system protection.	2M	CO3	BT1
6	What is the function of Auto-Recloser?	2M	CO3	BT1
7	What is the function of substation?	2M	CO4	BT1
8	Define series capacitors.	2M	CO4	BT1
9	What is the Importance of voltage control?	2M	CO5	BT1
10	Write the function AVR.	2M	CO5	BT1
	Part-B			
Answer All the following questions. (5X10M=50Marks)		Marks	CO	Bloom Tx
11	Explain about loss factor and feeders.	10M	CO1	BT2
	OR			
12	What is a distribution system? What are the different types of load that are connected to this system?	10M	CO1	BT2
13	Explain benefits derived through optimal location of substations.	10M	CO2	BT2
	OR			
14	Explain radial feeder with uniformly distributed load.	10M	CO2	BT2
15	Explain the procedure for calculation of fault current in the L-G fault.	10M	CO3	BT2
	OR			
16	a) Explain the principle of operation of circuit breaker and explain their merits and demerits. b) What are the objectives of protection co- ordination?	5M 5M	CO3	BT2

17	a) Explain in details the series compensation. b) Explain procedure to determine the best location of capacitor.	5M 5M	CO4	BT2
	OR			
18	Compare shunt and series capacitor schemes of compensation.	10M	CO4	BT2
19	Explain the line drop compensation on voltage control.	10M	CO5	BT2
	OR			
20	Explain different methods of voltage control in power system with neat diagrams.	10M	CO5	BT2