R17 Regulation *Subject code:1E7BB*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech IV Year I Semester Supplementary Examinations, January 2023

Electrical Distribution Systems

(EEE)

Maximum Marks: 70 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.
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)

1 What are the Factors effecting the Distribution system planning
2 Define Coincidence factor
3 Define Loss factor
4 Difference between Radial and loop types of primary feeders
5 List objectives of distribution system protection
6 What is the function of circuit breakers?
7 List the Coordination of Protective Devices
8 What is the function of series capacitors
9 What is the Importance of voltage control
10 What is the function of series capacitors

Part-B

Answer All the following questions. (5X10M=50Marks)

11 Derive relationship between the load factor and loss factor. [10]

OR

12 What are the factors effecting the feeder voltage level. [10]
13 Benefits derived through optimal location of substations. [10]

OR

14 Compare the four and six feeder patterns of substation service area. [10]
15 A. Write objectives of distribution system protection. [5]
B. Write the advantages and disadvantages of circuit breaker. [5]

OR

16 A. Explain Auto-Recloser to Fuse co-ordination [5]
B. Explain Fuse- Fuse co-ordination. [5]
17 Explain the procedure to determine the best location of capacitor. [10]

OR

18 Compare shunt and series capacitor schemes of compensation. [10]
19 Explain the line drop compensation on voltage control. [10]

OR

20 Explain the effect of AVR on voltage control. [10]