



R18 Regulation

Subject code:2P5BA

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech V Semester Supplementary Examinations, December 2024

POWER SYSTEM -I (EEE)

Maximum Marks: 70

Date:23.12.2024

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)		CO	Bloom Tx
1	Write few parts in thermal plants?	1	L1
2	Write the function of super heater?	1	L1
3	Write any two factors of selection of site for hydroelectric station?	2	L1
4	What is wind power?	2	L1
5	Compare AC and DC Distribution system briefly?	3	L1
6	What is AC distribution system?	3	L1
7	List the difference between Indoor and Outdoor substation.	4	L1
8	Which factor is considered while constructing a feeder?	4	L1
9	What is Tariff?	5	L1
10	What is power factor tariff?	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		CO	Bloom Tx
11	Explain power generation using gas turbine plant with neat diagram. [10M]	1	L2
OR			
12	Explain the classification of Hydroelectric plants according to Quantity of Water available? [10M]	1	L2
13	Explain the Hybrid Power system with neat diagram? [10M]	2	L2
OR			
14	Mention advantages and disadvantages of solar power plant? [10M]	2	L2
15	Write the advantage and applications of Hybrid power systems. [10M]	3	L2
OR			
16	Explain single bus-bar sensationalized system and double bus-bar system with neat diagram? [10M]	3	L2
17	Explain Under ground Sub-Station with neat diagram? [10M]	4	L2
OR			

18	Explain construction of underground cables with neat diagram?	4	L2
19	Derive expressions for cost of electrical energy? [10M]	5	L2
	OR		
20	A generating station has a maximum demand of 25MW, a load factor of 60%, a plant capacity factor of 50% and a plant use factor of 72%. Find (i) the reserve capacity of the plant [10M] (ii) the daily energy produced and (iii) maximum energy that could be produced daily if the plant while running as per schedule, were fully loaded.	5	L2