



R20 Regulation

Subject code: 306BE

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VI Semester Supplementary Examinations, February 2024

RENEWABLE ENERGY SOURCES

(Electrical & Electronics Engineering)

Maximum Marks: 70

Date:27.02.2024 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	Define distributed generation.		1	L2
2	Write any four advantages of wind energy?		1	L1
3	Define photo voltaic effect		2	L2
4	Write any four advantages of fuel cells		2	L1
5	What are the various losses in induction generator		3	L2
6	Draw induction generator efficiency characteristics		3	L3
7	Define specific power		4	L2
8	What is recharge rate?		4	L2
9	Define micro grid.		5	L2
10	Write advantages of Z-source converter system		5	L3

Part-B

Answer All the following questions.		(5X10M=50Marks)		
11	A. Discuss modern electronic control of power systems. [5] B. Explain supply side management options. [5]		1	L3
	OR			
12	A. Write in detail about general classification of wind turbines. [5] B. Elucidate analysis of Small Generating Systems. [5]		1	L3
13	A. Explain generation of electricity by photovoltaic effect. [5] B. Discuss economical analysis of solar energy. [5]		2	L3
	OR			
14	A. Discuss low and high temperature fuel cells. [5] B. Explain Membrane Fuel Cells. [5]		2	L3
15	A. Explain working of self excited induction generator. [5] B. Discuss the economical aspects of induction generator. [5]		3	L4
	OR			