



Regulation R18

Subject code: 206CB

**TKR COLLEGE OF ENGINEERING AND TECHNOLOGY**

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

**B.Tech VI Semester Supplementary Examinations, February 2024**

**SOLAR ENERGY APPLIANCES**

(Mechanical Engineering)

Maximum Marks: 70

Date: 24.02.2024

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 10 questions. Answer any 5 questions 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	What is Solar Cell?		
2	List out different applications of Solar Lighting systems.	CO1	L1
3	State the advantages and disadvantages of Solar cookers.	CO1	L2
4	Write a short notes on Solar Cooker.	CO2	L2
5	What are the two general types of a solar dryer	CO2	L1
6	What is meant by solar dryer?	CO3	L1
7	Discuss about Solar Still.	CO3	L1
8	Explain the necessity of Solar Desalination.	CO4	L1
9	List out types of Solar furnaces.	CO4	L2
10	How Solar Furnaces work?	CO5	L1

Part-B

Answer all the questions

(5X10M=50Marks)

11	Discuss about Rural electrification process with a case study. [10]	CO1	L2
	OR		
12	Sketch and explain about Solar Lanterns. [10]	CO1	L3
13	Explain Parabolic dish cooker with a neat sketch. [10]	CO2	L2
	OR		
14	Evaluate the performance characteristics of a Solar Cooker. [10]	CO2	L3
15	What are the main applications of a solar dryer? Explain any one case study. [10]	CO3	L2
	OR		
16	Discuss about Forced circulation type solar dryer. [10]	CO3	L2
17	Differentiate between conventional and solar desalination. [10]	CO4	L3
	OR		
18	Explain the materials problems in solar still. [10]	CO4	L2
19	Discuss about single concentrator furnaces. [10]	CO5	L2
	OR		
20	Explain any two case studies on solar furnaces. [10]	CO5	L2