



R18 Regulation **Subject code:206CB**
TKR COLLEGE OF ENGINEERING AND TECHNOLOGY
(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech VI Semester Supplementary Examinations, December 2024

SOLAR ENERGY APPLIANCES
(ME)

Maximum Marks: 70

Date:07.01.2025

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	What is Solar Cell?	1	L1
2	List out different applications of Solar Lighting systems.	1	L1
3	State the advantages and disadvantages of Solar cookers.	2	L1
4	Write a short notes on Solar Cooker.	2	L1
5	How drying is achieved in a solar dryer?	3	L1
6	What is the disadvantages of sun drying?	3	L1
7	Explain the necessity of Solar Desalination.	4	L1
8	Write a short notes on Solar disinfection.	4	L1
9	State the components of a Solar furnace.	5	L1
10	Explain about Heliostat.	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		CO	Bloom Tx
11	Discuss about Rural electrification process with a case study. [10M]	1	L2
OR			
12	Sketch and explain about Solar Lanterns. [10M]	1	L2
13	Explain the advantages, disadvantages and applications of Solar cooking systems. [10M]	2	L2
OR			
14	Illustrate Box type solar cooker with a neat sketch. [10M]	2	L2
15	Differentiate between direct type and mixed mode type solar dryer. [10M]	3	L2
OR			
16	Discuss about Forced circulation type solar dryer. [10M]	3	L2
17	Differentiate between conventional and solar desalination. [10M]	4	L2
OR			
18	Explain the materials problems in solar still. [10M]	4	L2
19	Explain any two case studies on solar furnaces. [10M]	5	L2
OR			
20	Explain single concentrator furnaces with neat sketch. [10M]	5	L2