



Regulation R18

Subject code: 206CB

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VI Semester Supplementary Examinations, January 2023

SOLAR ENERGY APPLIANCES

(Mechanical Engineering)

Maximum Marks: 70

21-01-23

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)

- 1 List out the applications of solar energy
- 2 Write the applications of Solar Lanterns?
- 3 What are different types of Solar cookers?
- 4 Write the function principle of Solar Cooker?
- 5 What are the two general types of a solar dryer?
- 6 What is meant by solar dryer?
- 7 Write about Solar Still.
- 8 Write the necessity of Solar Desalination.
- 9 List out types of Solar furnaces.
- 10 How Solar Furnaces work?

Part-B

Answer all the equations

(10MX 5=50Marks)

- 11 Discuss in detail Solar Home Lighting Systems. [10]
OR
- 12 Sketch and explain about Solar Lanterns.
- 13 Explain the advantages, disadvantages and applications of Solar cooking systems. [10]
OR
- 14 Illustrate Box type solar cooker with a neat sketch. [10]
- 15 What are the main applications of a solar dryer? Explain any one case study. [10]
OR
- 16 Discuss about Forced circulation type solar dryer. [10]
- 17 Differentiate between conventional and solar desalination. [10]
OR
- 18 Explain the materials problems in solar still. [10]
- 19 Discuss about single concentrator furnaces. [10]
OR
- 20 Explain any two case studies on solar furnaces. [10]

