



Regulation R18  
TKR COLLEGE OF ENGINEERING AND TECHNOLOGY  
(Autonomous, Accredited by NAAC with 'A' Grade)

Subject code: 206CB

B.Tech VI Semester Supplementary Examinations, June/July 2023

**SOLAR ENERGY APPLIANCES**

(Mechanical Engineering)

Maximum Marks: 70

Date:03.07.2023 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 What is Solar Cell?
- 2 List out different applications of Solar Lighting systems.
- 3 State the advantages and disadvantages of Solar cookers.
- 4 Write a short notes on Solar Cooker.
- 5 What are the two general types of a solar dryer
- 6 What is meant by solar dryer?
- 7 Discuss about Solar Still.
- 8 Explain the necessity of Solar Desalination.
- 9 List out types of Solar furnaces.
- 10 How Solar Furnaces work?

Part-B

Answer all the questions

(10MX 5=50Marks)

- 11 Discuss about Solar Home Lighting Systems. [10]  
OR
- 12 Discuss about Rural electrification process with a case study. [10]
- 13 Explain Parabolic dish cooker with a neat sketch. [10]  
OR
- 14 Illustrate Box type solar cooker with a neat sketch. [10]
- 15 Discuss about Solar timber drying system. [10]  
OR
- 16 What is solar drying system and briefly explain its type? [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]