



Regulation R18

Subject code: 208AA

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VIII Semester Supplementary Examinations, April 2024

SOLAR ENERGY APPLIANCES

(Civil Engineering)

Maximum Marks: 70

Date: 27.04.2024 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)

- 1 Define photovoltaic cell.
- 2 List the components of solar street light.
- 3 Mention the types of solar cooker.
- 4 What is bin wall collectors.
- 5 What are the drawbacks of solar dryers?
- 6 State any four applications of solar dryers.
- 7 Recall the necessity of SODIS.
- 8 Define electro dialysis.
- 9 What are the advantages of solar still?
- 10 Explain heliostats solar furnaces.

Part-B

Answer All the following questions.

(5X10M=50Marks)

- 11 Discuss briefly about solar lanterns with neat sketch. [10]
OR
- 12 Write about case studies on solar rural electrification? [10]
- 13 Explain in detail with a neat sketch of any one type of solar cooker. [10]
OR
- 14 Draw a neat sketch with parts of box type solar cooker. [10]
- 15 Summarize the direct type solar dryer and forced circulation type dryers. [10]
OR
- 16 Discuss in detail about solar timber drying. [10]
- 17 Explain the process of SODIS. [10]
OR
- 18 Discuss in detail various desalination technique. [10]
- 19 What do you know about solar furnaces summarize any one type of furnaces? [10]
OR
- 20 Explain briefly about solar furnace designs. [10]