



R18 Regulation
TKR COLLEGE OF ENGINEERING AND TECHNOLOGY
(Autonomous, Accredited by NAAC with 'A' Grade)
B.Tech VI Semester Regular/Supplementary Examinations, June 2022
Solar Energy Appliances
(Mechanical Engineering)

Subject code: 206CB

Maximum Marks: 70

Date:22.06.2022 Duration: 3 hours

Part-A

All the following questions carry equal marks

(10x2M=20 Marks)

- 1 What are major advantages of solar PV system?
- 2 What is a solar lantern?
- 3 List the types of solar cookers.
- 4 Mention the applications of solar cookers.
- 5 What is the need for solar dryer?
- 6 Mention the basic parts of a solar dryer.
- 7 Give the limitations of solar desalination.
- 8 What is solar disinfection?
- 9 What is a heliostat?
- 10 List the types of solar furnace.

Part-B

Answer All the following questions.

(5X10M=50Marks)

- 11 Explain the various types of Photo Voltaic systems. 10
- OR
- 12 Discuss the components and layout of a solar street lighting system. 10
- 13 Explain the construction and working of parabolic dish cooker. 10
- OR
- 14 Give a detailed account of tests performed on a solar cooker to evaluate its performance. 10
- 15 Explain the hybrid solar energy dryer with a neat sketch. List its merits and limitations. 10
- OR
- 16 (a) What are the advantages of solar dryers over traditional open sun drying? 4
(b) Explain the working of a forced convection solar dryer. 6
- 17 Explain the following
(a) Direct type desalination (b) Material problems in solar still 5+5
- OR
- 18 Discuss the construction and working of a solar desalination plant with neat Sketch. 10
- 19 Describe the components of a single heliostat solar furnace with a schematic layout. 10
Mention its applications and limitations.
- OR
- 20 Give an account of design, environmental and financial issues in building a solar furnace for material testing. 10