**Reg. No. :** ☐☐☐☐☐☐☐☐☐☐☐

**Question Paper Code: 98763**

B.E./B.Tech. DEGREE EXAMINATION, MAY 2022

One credit

Mechanical Engineering

19UME863- Solar Energy

(Regulations 2019)

(Common to All branches)

Duration: 1.30 minutes                                             Maximum: 50 Marks

Answer All Questions

PART A - (10x 2 = 20 Marks)

| | | |
|---|---|---|
| 1. | What is energy and specify the types of energy? | CO1- R |
| 2. | What are all the energy alternatives are available? | CO1- R |
| 3. | List any four solar energy collection devises. | CO1- R |
| 4. | What do you mean by renewable energy sources | CO1- R |
| 5. | What is solar bond? | CO2- R |
| 6. | How power plant works? | CO2- R |
| 7. | How solar cooker works? | CO2- R |
| 8. | How solar still works? | CO2- R |
| 9. | How solar energy used in agriculture? | CO3- R |
| 10. | What are all the advances in solar energy? | CO3- R |

PART – B  (3 x 10= 30Marks)

11. (a) Explain in detail how the solar energy is converted in to useful   CO1-U   (10)
electrical energy

Or

(b) Classify the devises for solar energy collection units and explain.   CO1-U   (10)

12. (a) Explain with neat sketch about solar power plant   CO2-U   (10)

Or

(b) Explain in detail about solar air conditioning   CO2-U   (10)

13    (a)    Summarize the developments in solar energy            CO1-U      (10)

<div align="center">Or</div>

       (b)    Illustrate the economic analysis of solar energy in detail.        CO1-U      (10)