

Reg. No. :

--	--	--	--	--	--	--	--	--	--

Question Paper Code: 98763

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

One credit

Mechanical Engineering

19UME863 – SOLAR ENERGY

(Regulations 2019)

Duration: 1.30 hours

Maximum: 30 Marks

Answer ALL Questions

PART A - (10x 1 = 10 Marks)

1. Flat-Plate Collector (FPC) is CO1-U
(a) Simple design (b) Less weight
(c) Complicated design (d) Less space required
2. In Flat-plate Collector most commonly used liquid is CO1-U
(a) Mercury (b) Steam (c) Water (d) Crude oil
3. The Collector Concentrator mirror reflector having the shape _____ CO1-U
(a) Cylinder (b) Tube (c) Cylindrical parabola (d) Sphere
4. Solar air heaters used for. CO1-U
(a) Industrial Purpose (b) Drying for agricultural
(c) Space heating (d) All of the above
5. In Solar air heater volume of fluid is to be handled as CO2-U
(a) large volume, (b) less volume (c) Maximum volume (d) Half of the volume
6. Photovoltaic energy is the conversion of sunlight into: CO2-U
(a) Chemical energy (b) Biogas (c) Electricity (d) Geothermal energy
7. A solar cell is made up of _____. CO2-App
(a) silicon (b) titanium (c) magnesium (d) teflon

8. Conventional forced-air , gas-heating system would Include the cost of CO3-U
(a) Furnace (b) Taxes (c) Salvage value (d) None of the above
9. Horizontal axis and vertical axis are the types of: CO3-U
(a) Nuclear reactor (b) Wind mills (c) Biogas reactor (d) Solar cell
10. Common energy source in Indian villages is: CO3-U
(a) Electricity (b) Coal (c) Sun (d) Wood and animal dung

PART – B (1x 20 = 20 Marks)

11. (a) Explain the application of solar Energy in agriculture for remote electricity supply. CO3-U (20)
- Or
- (b) Explain the application of solar Energy in water Pump for the Agriculture purpose. CO3-U (20)