Reg. No. :

Question Paper Code: 98763

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2024

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   CO3-U   (20)
        electricity supply.

Or

    (b) Explain the application of solar Energy in water Pump for the   CO3-U   (20)
        Agriculture purpose.

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