

No. of Printed Pages : 4

Roll No.

220145B

**4th Sem. / Branch : AGRI. ENGG.
Subject : Solar Technology**

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple type Questions. All Questions are compulsory. (6x1=6)

- Q.1 An instrument used for measuring total solar radiataion in called
a) Hygrometer b) Pyranometer
c) Anemometer d) Pyrheliometer
- Q.2 The output of solar cell is of the order of
a) 1W b) 5W
c) 10W d) 20W
- Q.3 In which city in Rajasthan are two 1800 MV solar parks being built.
a) Jodhpur & Barmer b) Jaislmer & Bikaner
c) Jaipur & Bikaner d) Jaisalmer & Barmer
- Q.4 The material used for making solar cells
a) Aluminium b) Germanium
c) Silicon d) Copper
- Q.5 Efficiency of practical used solar cell is approximately.
a) 25% b) 15%
c) 40% d) 60%

- Q.6 The angle at which a PV panel is installed from the horizontal affects its output. The ideal angle from horizontal surface is.
- a) 10^0 b) 30^0 to 45^0
c) 55^0 d) 60^0

Section-B

Note: Objective/Completion type questions. All questions are compulsory. **(6x1=6)**

- Q.7 The solar cell converts _____ energy into _____ energy.
- Q.8 Light energy can be converted in to electricity by _____.
- Q.9 Power is the rate of doing _____.
- Q.10 One Watt is a rate of working of one _____.
- Q.11 Solar energy can lead to generate the electricity through _____.
- Q.12 Solar cells consist of _____ layers.

Section-C

Note: Objective type questions. Attempt any eight questions out of ten questions. **(8x4=32)**

- Q.13 Write a short note on Photovoltaic cell.
- Q.14 Explain the advantage and disadvantage of photovoltaic cell.
- Q.15 Write a short note on solar power generation system.
- Q.16 Write a short note on thermal collector.
- Q.17 Writes a short note on non-concentrated solar collected.
- Q.18 Describe point focusing solar collector.

- Q.19 Explain the concept of SPV module.
- Q.20 Explain sensible heat storage.
- Q.21 Write the application of SPV module.
- Q.22 Write the application of solar pound.

Section-D

Note: Long answer Question. Attempt any two questions out of three Questions. **(2x8=16)**

- Q.23 Write the working and principle of solar water pumping.
- Q.24 Explain briefly solar cooking box type and its advantage.
- Q.25 Describes in brief solar water heater forced circulation type.