SC

SEAT No._____

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(25)

SARDAR PATEL UNIVERSITY

M.Sc. Renewable Energy Examination (Semester –I)

Monday, 06-11-2017, Time: 10.00 to 01.00P.M

PS01CREN02: Solar Energy

Total Marks: 70

Q-1 Select the most appropriate options **(8x1= 08)**

1. The average solar power received on the Earth's surface is
   a) 1000 mW cm^{-2}
   b) 1 kW m^{-2}
   c) 100 W cm^{-2}
   d) 1000 W cm^{-2}
2. Pyrheliometer is an instrument used to measures _____
   a) Diffuse solar radiation
   b) Scattered solar radiation
   c) Direct beam solar radiation
   d) Total radiation
3. A body reflects all incident thermal radiation is called
   a) Opaque body
   b) Black body
   c) Gases
   d) Specular body
4. The amount of solar radiation received on a unit area exposed perpendicularly to the rays of the sun at an average distance between the sun and the earth is defined as
   a) Solar insolation
   b) Solar constant
   c) Solar radiation
   d) Solar insulation
5. In solar collector, why transparent cover provide for
   a) Protect from dust
   b) Reduce heat losses
   c) Transmit solar radiation
   d) All the above
6. Solar cell convert light energy into
   a) Potential energy
   b) Electrical energy
   c) Kinetic energy
   d) None of the above
7. Hydrogen can be stored _____
   a) High pressure tank
   b) Cryogenics liquids
   c) In chemical compound
   d) All the above
8. A solar pond it is ____
   a) A pool of salt water which collect and store thermal energy
   b) Need separate collector for energy storage
   c) Due to evaporation non-saline water is constantly required to maintain salinity
   d) Answer a and c are correct
   e) Answer b and c are correct

Q-2 Answer **any seven** questions **(7x2 =14)**

1. What is solar constant?
2. Explain Sunrise, sunset and day length
3. Define beam, diffuse and global solar radiation.