Assignment-10

The due date for submitting this assignment has passed.

As per our records you have not submitted this assignment.

Due on 2021-03-31, 23:59 IST.

1) Helio灸s are two-axis tracked reflector surfaces
   ○ Having normal incidence of solar radiation
   ○ Having only southward orientation for any northern hemisphere location
   ○ Having orientation to redirect solar radiation to a predefined direction
   ○ Having only northward orientation for any northern hemisphere location

No, the answer is incorrect.
Score: 0
Accepted Answers:
Having orientation to redirect solar radiation to a predefined direction

2) Central receiver tower is a
   ○ Two-dimensional linear focus system
   ○ Two-dimensional point focus system
   ○ Three-dimensional linear focus system
   ○ Three-dimensional point focus system

No, the answer is incorrect.
Score: 0
Accepted Answer:
Three-dimensional point focus system

3) Find the absorbed solar insolation per unit aperture width (in MJ/m²) by a compound parabolic collector of concentration ratio 6, average number of reflector 1.32 and effective transmissivity-absorptivity product to be 0.85. Given: Beam insolation = 0.72 MJ/m², diffuse insolation = 0.13 MJ/m². Horn for the aperture plane, 1.0 for the given hour, Reflectivity of the reflector surface = 0.06.

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) 81.83

4) Electron-hole pairs in an intrinsic semiconductor material are present
   ○ Only when light is radiated on it
   ○ At sufficiently high temperature
   ○ At all conditions
   ○ Only when it is doped

No, the answer is incorrect.
Score: 0
Accepted Answers:
At sufficiently high temperature

5) Electron concentration and hole concentration
   ○ Are exactly the same for an intrinsic semiconductor
   ○ Are exactly the same for doped semiconductor
   ○ Can differ from each other in an intrinsic semiconductor at elevated temperature
   ○ Are the same for all intrinsic semiconductor materials at a given temperature

No, the answer is incorrect.
Score: 0
Accepted Answers:
Are exactly the same for an intrinsic semiconductor

6) If an impurity is introduced in a B type substrate
   ○ A donor band will be created
   ○ An acceptor band will be created
   ○ Conduction band will be shifted
   ○ Valance band will be shifted

No, the answer is incorrect.
Score: 0
Accepted Answers:
An acceptor band will be created

7) Density of states
   ○ Is the lowest at the band edge
   ○ Is the highest at the band edge
   ○ Varies linearly with the distance from the band edge
   ○ Varies exponentially with the distance from the band edge

No, the answer is incorrect.
Score: 0
Accepted Answers:
In the highest at the band edge

8) Mark the wrong statement(s).
   ○ Fermi level represents the fixed probability of finding an electron
   ○ Fermi level represents the fixed probability of finding an electron
   ○ Fermi level varies with temperature
   ○ Fermi level varies with temperature

No, the answer is incorrect.
Score: 0
Accepted Answers:
Fermi level varies with temperature

9) P-type deposits
   ○ Increases hole concentration and decreases electron concentration
   ○ Decreases hole concentration and increases electron concentration
   ○ Increases both hole concentration and electron concentration
   ○ Decreases both hole concentration and electron concentration

No, the answer is incorrect.
Score: 0
Accepted Answers:
Increases hole concentration and decreases electron concentration