**Solar Tracker: Pre-Assessment**

*Circle your answer to the questions below.*

1. PV stands for: .
2. *True or False*: A PV panel converts light energy to electricity.
   1. True
   2. False
3. *True or False*: Most solar cells are made from silicon, which is a semiconductor that comes from sand.
   1. True
   2. False
4. On which day of the year is the sun's position in the sky the highest?
   1. Fall equinox
   2. Spring equinox
   3. Summer solstice
   4. Winter solstice
5. On which day of the year is the sun's position in the sky the lowest?
   1. Fall equinox
   2. Spring equinox
   3. Summer solstice
   4. Winter solstice
6. At which time of the day is the sun's position in the sky the highest?
   1. 6 am
   2. 9am
   3. 12:00 exactly
   4. Solar noon
7. The solar altitude measures:
   1. The temperature of the sunlight.
   2. The angle from the vertical over to the sun.
   3. The angle from the horizontal up to the sun.
   4. The angle of the sun at the equator only.
8. For a given location, the solar altitude is the same all year long.
   1. True
   2. False
9. The solar azimuth measures:
   1. The horizontal angle between the line that points to the sun and north.
   2. The angle between the solar altitude and the given location's latitude.
   3. The angle of the sun at the equator only.
10. In the northern hemisphere, the optimal position for solar panels to face is:
    1. South
    2. North
11. To get optimal output from a solar panel, the panel should be tilted so that it is to the sun's rays.
    1. Parallel
    2. Perpendicular
    3. 30 degrees
    4. 60 degrees
12. Current is a measure of:
    1. How much power is being output by a solar panel.
    2. The movement of electrons through the solar panel.
    3. The resistance of the solar panel.
13. Most often, stationary solar panels are positioned at a tilt angle that is equivalent to the location's .
    1. Longitude
    2. Latitude
    3. Latitude minus Longitude
    4. Latitude minus tilt of the earth