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B-9

Assignment - 2

1) (CdTe) photo voltaics is a technology that uses the compound cadmium telluride as the semiconductor material in photovoltaic cells that convert sunlight into electricity. Cadmium telluride offers some advantages over crystalline silicon, the substance originally used in the manufacture of PV cells. A junction layer of cells can be made extremely thin on the order of few micrometers. Thinner that a typical Si layer. It offers better efficiency than Si at high temperatures and low levels of illumination. In addition, CdTe PV cells require less energy to produce than Si PV cells do. Cd technology offers promise for future generation if only because conventional energy sources continue to suffer increasing scrutiny, regulation and price escalation.

Ans 2) CIGS solar cells are made from a compound called copper gallium indium diselenide sandwiched between conductive layers. This material can be deposited on substrates.

Such as glass, plastic steel, and aluminium and when deposited on a flexible backing, the layers are thin enough to allow full panels flexibility. The primary disadvantage of CIGS panels is their price while CIGS solar panels are an emerging option, they are currently very expensive to produce, so the prices where they can't compete with traditionally Silicon or Cadmium telluride panels.