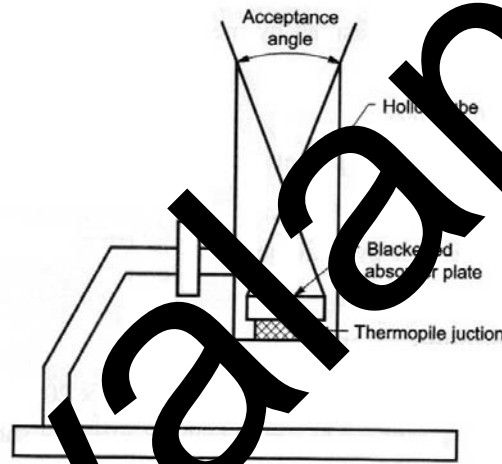


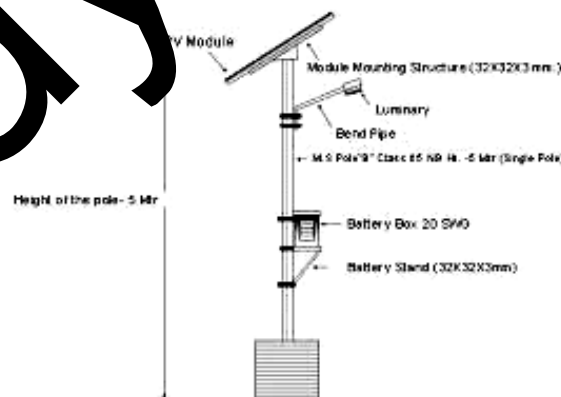
Q.6(e) Explain with help of sketch working of Pyrheliometer. [4]

(A) **Pyrheliometer** : It measures the beam radiations only coming from the Sun. The hollow receiver tube can be tilted about an axis perpendicular to its length. Thus the tube can be made to face the sun, thereby receiving only the beam radiation. No diffuse radiation can enter the tube. When the radiation falls on the absorber plate, it absorbs the radiation and it gets heated, thereby raising its temperature. The rise in temperature is measured by measuring the thermo emf of the thermopile.



Q.6(f) Describe the SPV solar street light. [4]

(A)



**SPV Solar Street light:** Solar cells are often electrically connected and encapsulated as a module. SPV modules have a sheet or glass on the front side allowing light to pass while protecting semiconductor wafers from the rain hail etc. Modules are then connected in series or parallel both to create an array. The power output of the array is measured in Watts.

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