

HW
7/1/21

ch-3
Energy
Exercise

4) what are the two kinds of mechanical energy?

Ans The two kinds of mechanical energy are -
i) Potential energy ii) Kinetic energy.

5) what is potential energy? State its unit.

Ans The energy of a body at rest is called the potential energy. It is defined as follows:- Potential energy of a body is the energy possessed by it due to its state of rest or position.

It is written as P.E or U

The SI unit of potential energy is Joules.

6) State two factors on which the potential energy of a body at a certain height above the ground depends.

Ans The potential energy of a body in the raised position depends upon the following two factors:

a) The mass of the body: Greater the mass of the body, greater is the potential energy of the body.

b) Its height above the ground:- Higher the height of the body, greater is its potential.

Q. Two bodies A and B of masses 10 kg and 20 kg respectively are at the same height above the ground. Which of the two has the greater potential energy?

Ans. The body B having mass 20 kg has the greater potential energy. This can be explained as follows:-

$$P.E = mgh$$

For both the bodies gravity and height are same so the body with greater mass possesses greater potential energy.