

B. (i) What are the two kinds of Mechanical Energy?

The two types of mechanical energy are - Potential energy and Kinetic energy.

(5) What is Potential energy? State its Unit.

Potential energy of a body is the energy possessed by it due to its state of rest or position. Actually it is equal to the work done in bringing the body to that state of rest or position. The unit of Potential energy is -  $\text{kg}(\text{cm/sec})^2$

(6) Give example of a body that has potential energy in each of the following: (i) due to its position. (ii) due to its state.

(i) Potential energy due to its position:

When a ball is released from the top of the building it has potential energy stored in it because of its position. This energy converted into kinetic energy when the ball is released.

(ii) Potential energy due to its state:

When the spring is compressed or stretched the potential energy is stored in the spring because of its state.

⑦ State two factors on which the potential energy of a body at a certain height above the ground depends.

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.

⑧ 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 greater potential energy?

Body B has greater potential energy because the mass of Body B is more than the mass of Body A.