Short / Long Answer Questions

Name the form of energy which a wou-nd up watch spring possesses.

A wound up watch spring has the potential energy because of its wo-und up state. As the spring unwi-nd itself, the potential energy changes into the kinetic energy. This ~~energy~~ kinetic energy ~~does~~ not does work in moving the arms of the watch.

Can a body posses energy ~~which~~ even when it is not in motion? explain your answer with an example.

Yes, a body possesses energy when it is not in motion;
Consider a body raised to a certa-in height say h. At its velocity is zero. Kinetic energy will be.

zero but the body will have
P.E = mgh
Thus, a body may possess energy
even though it is not in motion.

16 Name the type of energy (kinetic or potential) possessed by the following:

(i) A moving cricket ball
Ans Kinetic energy
(ii) A stone at rest on the top of a building.
Ans Potential energy
(iii) A compressed spring.
Ans Potential energy.
(iv) A ~~to~~ moving bus.
Ans Kinetic energy
(v) A bullet ~~fired~~ fired from a gun
Ans Kinetic energy.
(vi) Water ~~following~~ flowing in a river
Ans Potential energy.
(vii) A stretched rubber bands

Ans Potential energy.

17 Give one example to show the conversion of potential energy to kinetic energy when put in use

Ans The example to show the conversion of potential energy to kinetic energy when put in use is:

A stone at a height has the potential energy due to its lifted or raised position. In the figure below when the stone is dropped from that position, it begins to fall. The falling stone has the kinetic energy. Thus, the potential energy stored in the stone its raised position changes into the kinetic energy when the stone is falling This kinetic energy does work on the nail as the stone strikes the nail and makes the nail to move into the wood.