Worksheet No.:12

[Read and learn the notes thoroughly. Copy the questions and solve them on a sheet of paper date wise. Keep the WorkSheet prepared in a file to be submitted on the opening day]

**Potential Energy**

Potential energy is symbolically represented as $P. E$

$$P. E = mgh$$

Where $m = \text{mass of the body}$

$g = \text{acceleration due to gravity}$

$h = \text{height of the body from the earth surface}$

**Factors on which potential energy depends.**

1) The mass of the body
2) Acceleration due to gravity
3) The height of the body from the earth surface

Potential energy are of two types
   1) Gravitational potential energy
   2) Elastic potential energy

Gravitational potential energy – The energy possessed by a body when it is placed at a certain height above the earth surface is known as Gravitational potential energy.

   Gravitational potential energy = mgh

Elastic potential energy – The energy possessed by a body in its deformed state is known as elastic potential energy.

   Elastic potential energy = mgh

**Kinetic Energy**

Kinetic energy is symbolically represented as K. E

K. E = ½ mv^2
Where m= mass of the body
   V = velocity of the body

**Factors on which kinetic energy depends**

   1) The mass of the body
   2) The velocity of the body

Kinetic energy are of three types
   1) Translational kinetic energy
   2) Rotational kinetic energy
   3) Vibrational kinetic energy
1) What are the factors on which potential energy depends
2) Define the followings
   I) Gravitational potential energy
   II) Elastic potential energy
3) What are the factors on which kinetic energy depends.