

BRAIN INTERNATIONAL SCHOOL

Physics Assignment

Class: IX

October'18

Chapter -4: Work and Energy

Q1. Answer the following questions briefly:

- 1.(a) When is work done by a force positive ?
(b) When is work done by a force negative ?
(c) When is work done by a force zero ?
2. How does a bullet pierce a target ?
3. How much energy is possessed by a moving body by virtue of its motion ?
4. What type of energy is stored in the spring of a watch ?
5. A lamp consumes 1000J of electrical energy in 10s .What is its power ?
6. Derive an expression for (a) Kinetic energy
(b) Potential energy
(c) Law of conservation of mechanical energy in case of a freely falling body .
7. A man exerts a force of 200N in pulling a cart at a constant speed of 16m/s .Calculate the power spent by the man.
8. Calculate the increase in potential energy as a block of 2kg is lifted through 2m .
9. A bullet of mass 20g is found to pass two points 30m apart in 4s ? Assuming the speed to be constant, find its kinetic energy .
10. A battery lights a bulb. Describe the energy changes involved in the process.