XI Physics Worksheet

Time: 30 min **Chapter#6 : Work Energy and Power-02** **Full Marks: 20**

Instructions:

1. All questions are compulsory.

2. Please give the explanation for the answer where applicable.

Q1 - Define work energy theorem.

(2 Marks)

Q2 - Define conservative and non conservative forces.

(2 Marks)

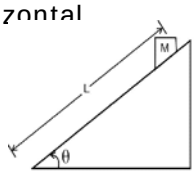
Q3 - A uniform chain of mass, m and length, l is held on a frictionless table such that one third of its length hangs over the edge. Calculate the work done to pull the hanging part of the chain back on the table?

(3 Marks)

Q4 -A bullet weighing 10 g is fired with a velocity of 800 m/s. After passing through a mud wall 1 m thick, its velocity decreases to 100 m/s. Find the average resistance offered by the mud wall.

(3 Marks)

Q5 -A block of mass, m is kept on a rough inclined plane making an angle θ with the horizontal. Find the velocity of the block when it reaches the bottom. (Given, coefficient of friction μ)



(5 Marks)

Q6 - What happens to the potential energy of a body when conservative force does positive work?

(1 Mark)

Q7 - When an air bubble rises in water, what happens to its potential energy ?

(1 Mark)

Q8 - Define coefficient of restitution?

(1 Mark)

Q9 - Can potential energy of an object be negative?

(1 Mark)

Q10 - Is linear momentum of a system always conserved ?

(1 Mark)