ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

- **Subject- Physics** **Worksheet- 3** **Class – IX**
- **Date-9.04.2020** 1st Term

Topic – work ,energy and power (numerical based)

Q. Choose the correct option

1.When a body falls freely under gravity than the work done by the gravity is

A. positive

B. negative

C.zero

D.Infinity.

2.When a gas filled in a cylinder fitted with a movable piston is allowed to expand the work done by the gas is positive

A. true

B. False

3.When a body slides against a rough horizontal surface, the work done by friction is

A.positive

B.zero

C.Negative

D. constant.

4.When a body is lifted, the work done by the gravitational force is positive

A.true

B. false.

5.When a body moving in circular path, the work done by the centripetal force is

A.negative

B.positive

C.constant

D.Zero

6.when a coolie walks on a horizontal platform with a load on his head ,the work done by the coolie on the load is zero

A.true

B. false

7.A gardener pushes a lawn roller through or distance of 20 metre .If he applies a force of 20Kg weight in a direction inclined at 60 degree to the ground. Find the work done by him g is 9.8 metre per second square.

A.400J

B.1960

C.25OJ

D.2514J

8.A person is holding a bucket by applying a force of 10 Newton. He moves over a horizontal distance of 5m and then climbs up a vertical distance of 10 metre. Find the total work done by him.

A 50 J

B.150 J

C. 100 J

D. 200 J

9.A moving hammer drives a nail into the wood. It has kinetic energy.

A.True

B. false

10.A bullet fired from a gun can Pierce a target due to its.

A.mechanical energy

B.heat energy

C.kinetic energy

D.Acceleration

11.How much time will be required to perform 520 J of work at the rate of 20 W?

A.24 s

B.16 s

C.20 s

D.26 s

12.A student carries a bag weighing 50kg from the ground floor to his class on the 1st floor that is 2 metre high. The work done by the boy is

A.1J

B.10J

C.100J

D.1000J

13.The power of an engine is 5 kW.Find the work done by it in 1hour

A.18000000J

B.1J

C.2J

D.3J

14.In a tug of war, the work done by the winner and the loser are

A.negative and positive respectively

B.same but opposite

C.positive

D.both b and c.

15.A bullet of mass 10 g travels at 400m per second its kinetic energy will be

A.800 J

B.200J

C.300J

D.199J

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