INDIAN SCHOOL DARSAIT
DEPARTMENT OF PHYSICS

Subject : Physics	**Multiple Choice Questions**	**Worksheet No**. 6
Resource Person:Mrs. Jayalakshmi Ratish		**Date** : 03-09-19
Name of the Student :_____	**Class & Division** :XI A/B	**Roll Number** : _

1 The unit J/kg is the unit for -

(a) velocity (b) force

(c) power (d) velocity squared

2 The horizontal component of a force of 10 N inclined at 30° to the vertical is...

(a) 5 N (b) 5√3 N

(c) 3 N (d) 10/√3 N

3 To keep a vehicle moving at the speed v requires a force F. The power needed is...

(a) F.v (b) $(1/2)Fv^2$

(c) F/v (d) F/v^2

4 When the velocity of a moving object is doubled...

(a) acceleration is doubled (b) momentum is doubled

(c) kinetic energy is doubled (d) potential energy is doubled

5 There are 20 divisions in 4 cm of the main scale. The vernier scale has 10 divisions. The least count is

(a) 0.05 cm (b) 5cm

(c) 0.5 cm (d) 0.005 cm

6 The dimensions of Kinetic energy is same as that of

(a) Force (b) Pressure

(c) Work (d) None of the above

7 The pairs of physical quantities that have the same dimensions are

(a)) Reynolds's number and coefficient of friction (b)Curie and frequency of a light wave

(c) Latent heat and gravitational potential (d) Planck's constant and torque.

8 If the error in radius is 3%, what is error in volume of sphere?

(a) 6% (b) 9%

(c) 3% (d) None of the above

9 Which of the following is dimensionless?

(a) frequency (b) stress

(c) coefficient of friction (d) gas constant

10 When the acceleration is zero, the final velocity of the body is

(a) zero (b) less than initial velocity

(c) more than initial velocity (d) equal to initial velocity

11 The coefficient of static friction for steel on ice is 0.1. The coefficient of kinetic friction can therefore be

(a) 0.08 (b) 0.1

(c) 0.11 (d) 1.1

12 If the reading is taken with measuring scale whose minimum division is 1mm, then the correct reading:

(a) 0.2145 m (b) 0.214 m

(c) 0.21 m (d) none

13 Area under the curve of force-displacement graph is equal to:

(a) displacement (b) work

(c) power (d) velocity

14 Which of the following is not conservative force?

(a) Electric (b) Gravitational

(c)Friction (d) Magnetic

15 If velocity of a moving object is doubled, its K.E becomes:

(a) doubled (b) halved

(c) 5 times (d) 4 times

16 The consumption of energy by 60 watt bulb in 2 seconds is:

(a) 20 J (b) 120 J

(c) 30 J (d) 0.02 J

17 A car moving on a straight road with 100m/s can be stopped at what distance? (μ_k=0.5)

(a) 1000 m (b) 800 m

(c) 400 m (d) 100 m

18 A 12.0 kg mass is hung from a spring with a spring constant of 2400 N/m. How much did the spring stretch from its equilibrium position?

(a) 1.49 m (b) 0.049 m

(c) 2.4 m (d) 3 m

19 If it takes a force of 20 N to stretch a spring 0.1 meter, how much energy does the spring have?

(a) 1 J (b) 2 J

(c) 10 J (d) 20 J

20 An arrow is drawn back so that 50 Joules of elastic potential energy is stored in the bow/string. Assuming friction is negligible, when released the arrow will have a kinetic energy of ____.

(a) 50 J (b) less than 50 J

(c) more than 50 J (d) none of the above