Worksheet 1

Write true or false for the following statements

1/ Vertical component of projectile motion is an accelerated motion.

2/In Circular motion at constant speed acceleration is zero

3/ Identical guns fire identical bullets horizontally at the same speed from the same height above level planes, one on the Earth and one on the Moon. The bullets in the Earth travel larger horizontal distance than moon

4/If the polar ice caps melt completely as a result of rising global temperature, then his duration of a day on the Earth will decrease

5/the electrons flow through the damp air and the object become electrically neutral

6/Stable equilibrium means when the object slightly displaced it moves further away from its original position

7/ Geostationary satellite a satellite having the same angular velocity as Earth

8/Torque at pivot or axis of rotation is zero

Choose the correct answer from the given alternatives

9/ when an object moves around a circle

A. It displaced 2π radian B.it 's displacement is zero c.2π r meter d

10/ which of the following is not true about positively charged body

A. It gained positive charge B. It has excess no protons

C.It has deficiency of electrons D.It loose its electron

11/ Which of the following is not the unit of angular momentum?

A.kgm² rad/se B. N.m.s C.kg m²/s D .Js

12/A negatively charged rod is brought close to one end of a neutral metallic plate. What type of charge is induced on the closest side of the plate?

A. Positive B. Negative C. Neutral D. cannot be determined

13/A flywheel rotating at 10π rad/ s is brought to rest in 5s. The magnitude of the average angular acceleration in rad/s² of the wheel during this process is:

A.2 B. 2π C. 50π D 50

14/The force between two misses M and m at a distance r is 10N . What will be the force when the distance become double.

A.2.5N B.5N C.10.N D 40N

Give short answer for the following

15/What is the angular velocity of a minute hand of a watch as it moves from 3:20 to 4:20

16/ Convert 180 rpm in to rad/s

17/ Identify the following physical qualities whether they are vector or scalar

Torque _____ Moment (rotational) inertia _____

Angular momentum _____ Angular velocity

18/State or write the law of conservation of angular momentum

19/Write or state two conditions of equilibrium _

20/ Write two applications of Electrostatic __

Work-out

21/ Calculate the value of g at height of equal to the diameter of Earth above Earth surface

22/ Find the torque and when the work done to move through an angle of π radian is 3J

23/ If the moment of inertia π /2 kg m^2 what will be its angular acceleration