Measurement and Motion.   **Worksheet 1**   Date : 16.11.22

I.Match the events related to motion in Column I with the types of motions given in Column II

Column I	Column II
(a) Motion of a child on a swing	(i) Circular motion
(b) the falling of a stone	(ii) Rotational motion
(c) Movement of the tip of the minute hand of a clock in 1 hour	(iii) Periodic Motion
(d)The needle in the sewing machine	(iv) Rectilinear motion
(e) A moving wheel of a sewing machine	

II. Choose the appropriate answer

1.A man moves on a straight road from point A to point C. She takes 20 minutes to cover a certain distance AB and 30 minutes to cover the rest of distance BC. Man then turns back and takes 30 minutes to cover the distance CB and 20 minutes to cover the rest of the distance to his starting point. Man makes 10 rounds on the road the same way. The motion of the man is
(a) only rectilinear motion.   (b) only periodic motion.
(c) rectilinear and periodic both.   (d) neither rectilinear nor periodic

2. Arrange the following lengths in their increasing magnitude:
    2 metre, 2400 centimetre,10000 millimetre, 2 km
(a)2400 centimetre < 2 km < 2400 centimetre < 2 metre
(b) 2 metre>2400 centimetre< 2 km <10000 millimetre
(c)2 metre < 2400 centimetre < 2km < 10000 millimetre
(d) 2 metre > 2400 centimetre < 2km > 10000 millimetre

3.Which of the following does not express a time interval?
(a) A day.   (b) A second.
(c) A school period.   (d) Time of the first bell in the school

4.Four children A,B,C and D measure the length of a table which was about 1 m. Each of them used different ways to measure it.
(i) A measured it using a 2 m long measuring tape.
(ii) B measured it with a 10 cm scale from her geometry box.
(iii)C measured it using her hand span.
(iv) D measured it with a .5 metre long thread.
Which one of them would get the most accurate length?

5.X and Y starts from point A . X start running through AB and reach point B. Y also starts running through path ABC and reach B at the same time as A. The situation is depicted in the below figure
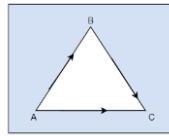
Which of the following is/are true for the given situation.
(a) B covers longer distance but with a lower speed.
(b) A covers shorter distance with a higher speed
(c) A covers shorter distance with a lower speed.
(d) B covers longer distance with a higher speed.

6.Sam is travelling in a train. He observe that the trees near the track appears to be moving whereas co-passengers appear to be stationary. He is curious to know the reason. Help him out
Answer
(a)The position of trees is changing with respect to us while of that co-passengers is not changing
(b)The position of trees is not changing with respect to us while of that co-passengers is changing
(c) The position of trees is changing with respect to us while of that co-passengers is also changing
(d) none of the above

7.You are provided three scales A, B and C as shown in below figure to measure a length of 10 cm
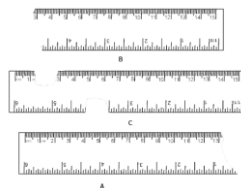
For the correct measurement of the length you will use the scale
(a) A only   (b) B only.   (c) C only.   (d) Any of the three scales.

8.Select the odd one out
(a)Motion of moon around the earth.
(b) Motion of stone tied to a thread and whirling around
(c)Motion of the person sitting on merry go round.
(d)Motion of a man walking on the straight road

9.Which of the below motion is a periodic motion
a.Motion of a ant.   b.A swing in a playground.   c.Simple pendulum.   d.A flying bird
(a). b and c   (b). c and d.   (c) a and d.   (d) a and b

10.Which of the below are in motion
(a). A table.   (b). A house.   (c). A fish moving in water.   (d). A moving train

III.Fill in the blanks
(1) Motion of an object or a part of it around a fixed point is known as _____ motion.
(2) A body repeating its motion after certain interval of time is in _____ motion.
(3) The ball is rolling on the ground is having both _____ and _____ motion
(4) SI unit of length is _____
(5) The comparison of unknown quantity with the known quantity is called _____.

Measurement and Motion.　　　　　**Worksheet 2**　　　　　　　　Date : 16.11.22

I.Fill in the Blanks:
1. One metre is ……………………… cm.
2. Five kilometre is ………………… m.
3. Motion of a child on a swing is ……………………… .
4. Motion of the needle of a sewing machine is …………… .
5. Motion of wheel of a bicycle is ……………… .

II. Tick the Correct Option:
1. A kite flying in the sky has motion of the type :
a) linear 　　b) random 　　c) curvilinear 　　d) periodic
2. Which of the following shows no change in direction of the moving body?
a) Curvilinear motion 　　b) Oscillatory motion 　　c) Rectilinear motion 　　d) Revolution
3. The S.I. Unit of length is:
a) millimetre 　　b) metre 　　c) kilometre 　　d) none of these
4. Which of the following was not used by ancient person for the measurement of length?
a) Foot 　　b) Metre scale 　　c) Cubit 　　d) Handspan
5. The motion of a pendulum is:
a) periodic 　　b) circular 　　c) curvilinear 　　d) rotational

III. State True or False:
1. Centimetre is the S.I. unit of length. ……………….
2. The blades of a flying helicopter have different kinds of motion. …………………
3. A ceiling fan as a whole is at rest when it is on. ………………
4. The motion of the needle of a sewing machine is oscillatory. ………………
5. Circular motion is also called revolution. ……………..

IV. Match the following:

'A'	'B'
1. A ball thrown upward at an angle is the example of	a. kilometre
2. Cloth is measured in	b. rectilinear motion
3. The motion of potter's wheel is the example of	c. curvilinear motion
4. The distance from Delhi to Mumbai is measured in	d. metre
5. A car moving on a straight line is the example of	e. rotatory motion

V. Observe the following diagrams and write the type of motion of these objects exhibit while in action or being played.

1.

2.

3. End position · · · · · · · End position

Mean position

4.

5.

6.