Prepared by: Sumeet Sahu
+91-8103405051
Visit: www.uniquestudyonline.com
YOUTUBE:UNIQUESTUDYPOINT

UNIQUE STUDY POINT
ASSERTION AND REASON: CLASS X
HUMAN EYE

	(a) Both A and R are true and R is the correct explanation of A. (b) Both A and R are true but R is not the correct explanation of A. (c) A is true but R is false (d) A is false but R is ture.
1	Q (1): Assertion: Displacement for a course of motion may be zero but the corresponding distance covered is not zero. Reason : Displacement and distance covered may not always be equal.
2	Q (2): Assertion:A boy riding on bicycle in a crowded street exhibit non uniform motion. Reason: The boy covers equal distance in equal interval of time.
3	Q (3): Assertion: Velocity is the speed of an object in a particular direction. Reason: SI unit of velocity is same as speed.
4	Q (4): Assertion: A stone tied with a piece of thread describing a circular path with constant velocity on being released moves in a straight line. Reason: Along the circular path direction of motion remains the same at every point.
5	Q (5): Assertion: Weight of an object is the force with which a body is attracted towards the earth. Reason: Its direction is vertically upward.
6	Q (6): Assertion: Motion of satellites around their planets is considered an accelerated motion. Reason: During their motion, the speed remains constant, while the direction of motion changes continuously
7	Q (8): Assertion (A) : The distance-time graph of uniform motion is a straight line. Reason (R) : Dependent variable is along y-axis and independent variable is along x-axis
8	Q (9): Assertion (A) : The velocity of a body is a scalar quantity. Reason (R) : A vector quantity has both magnitude and direction
9	Q (10): Assertion (A) : Motion of Moon around Earth is a non-uniform motion. Reason (R) : The size of Moon is smaller than that of Earth.
10	Q (11): Assertion (A) : The distance and displacement are diferent plysical quantities. Reason (R) : Distance is the length of actual path while displacement is directed distance between initial and final positions.
11	Q (12): Assertion (A) : A body can have acceleration even if it's velocity is zero at a given instant. Reason (R) : A body is momentarily at rest when it reverses it's direction of motion.
12	Q (13): Assertion (A) : The motion of the athlete moving along a circular palh is an example of an accelerated motion. Reason (R) : If a boy moves with a velocity of constant magnitude along a circular path, the change in his velocity is due to the change in the direction of motion.
13	Q (14): Assertion (A) : If a particle is moving with constant velocity, then average velocity for any time interval is equal to instantaneous velocity. Reason (R) : If average velocity of a particle moving on a straight line is zero for a given time, then instantaneous velocity at some instant within this interval may be zero.
14	Q (15): Assertion (A) : Displacenment of a body may be zero, when distance travelled by it is not zero. Reason (R) : The displacement is the longest distance between initial and final positions.
15	Q (16): Assertion (A) : The displacement of a body may be zero, though its distance is finite. Reason (R) : If body has moved, then displacemnent is zero when initial and final positions are same; while distance is finite.
16	Q (17): Assertion (A) : An object can have constant speed but variable velocity. Reason (R) : Velocity changes due to change in direction, though speed is same.

17	Q (18): Assertion (A) : A body cannot move on a circular path without any acceleration. Reason (R) : In uniform circular motion, the velocity of the body remains constant.
18	Q (19): Assertion : In a uniformly accelerated motion, graph will be a straight line parallel to the time axis and the slope of graph is zero. Reason : For a uniformly accelerated motion, acceleration is constant with time.
19	Q (20): Assertion : Displacement of an object may be zero even if the distance covered by it is not zero. Reason : Displacement is the shortest distance between the initial and final position.
20	Q (23): Assertion : The speedometer of a car measures the instantaneous speed of the car. Reason : Average speed is equal to the total distance covered by an object divided by the total time taken.
21	Q (24): Assertion : An object may have acceleration even if it is moving with uniform velocity. Reason : An object may be moving with uniform velocity but it may be changing its direction of motion
22	Q (25): Assertion : There is diference between distance and displacement. Reason : Distance and displacement have diferent units.
23	Q (27): Assertion : Average velocity = (initial velocity + final velocity) / 2 Reason : This formula applies when the velocity of a body is changing at a constant acceleration only
24	Q (28): Assertion : When the displacement of a body is directly proportional to the square of the time. Then the body is moving with uniform acceleration. Reason : The slope of velocity-time graph with time axis gives acceleration.
25	Q (30): Assertion: The accelerated motion of an object may be due to change in magnitude of velocity or direction or both of them. Reason: Acceleration can be produced only by change in magnitude of the velocity. It does not depend the direction.
26	Q (32): Assertion : Displacement of an object may be zero even if the distance covered by it is not zero. Reason : Displacement is the shortest distance between the initial and final position.
27	Q (37): Assertion : Motion with uniform velocity is always along a straight line path. Reason : In uniform velocity a motion, speed is the magnitude of the velocity and is equal to the instantaneous velocity
28	Q (39): Assertion : The displacement of an object can be either positive, negative or zero. Reason : Displacement has both the magnitude and direction
29	Q (41): Assertion: The numerical ratio of displacement to distance is equal to one or less than one. Reason : Displacement is a vector quantity and distance is a scalar quantity.
30	Q (42): Assertion : If the net external force on the body is zero, then its acceleration is zero. Reason : Acceleration does not depend on force.
31	Q (55): Assertion : A large number of concurrent forces acting at the same point of the object, then the object will be in equilibrium, if sum of all the forces is equal to zero. Reason : Equilibrium of a particle in mechanics refers to the situation when the net external force on the particle is non-zero.