UNIT 2
KINEMATICS

MULTIPLE CHOICE QUESTIONS

1. Study of motion of the bodies is known as:
(a) Heat (b) Light
(c) Atomic physics (d) Mechanics

2. Study of motion without discussing the cause of motion is called:
(a) Kinematics (b) Dynamics
(c) Heat (d) Motion

3. If a body does not change its position with respect to some observer then it will be in a state of:
(a) Rest (b) Motion
(c) Uniform motion (d) Relative motion

4. If a body changes its position with respect to some observer then it will be in state of:
(a) Rest (b) Motion
(c) Uniform motion (d) Relative motion

5. Rest and motion are ---------- states:
(a) Absolute (b) Constant
(c) Variable (d) Relative

6. Which one of the following is a vector quantity?
(a) Displacement (b) Speed
(c) Volume (d) Work

7. The spinning motion of a body about its axis is known as. (LHR 2015)
(a) Translatory motion (b) Vibratory motion
(c) Rotatory motion (d) none of these

8. When a body moves to and fro about a point and repeats its motion again and again about the same point then this motion is known as: (GRW 2014, 2015)
(a) Translatory (b) Vibratory
(c) Rotatory (d) none of these

9. The motion of the string of a violin is:
(a) Translatory (b) Vibratory
(c) Rotatory (d) none of these

10. Total length of a path between two points is known as:
(a) Velocity (b) Acceleration
(c) Speed (d) Distance

11. The shortest distance between two points is known as:
(a) Velocity (b) Displacement
(c) Speed (d) Distance

12. The area uner a speed time graph respresents
(a) Speed (b) Volume
(c) Acceleration (d) Distance

13. SI unit of speed is:

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(a) ms^{-1} (b) mh^{-1}
(c) kms^{-1} (d) All of these

14. Speed is a ---------- quantity:
(a) Vector (b) Scalar
(c) Both (d) none of these

15. If a body covers equal distance in equal intervals of time, however small the intervals may be, then the speed of the body is known as:
(a) Uniform (b) Variable
(c) Non uniform (d) All of these

16. The rate of displacement with respect to time is known as:
(a) Distance (b) Speed
(c) Velocity (d) Acceleration

17. If the speed and direction of the moving body does not change with time then its velocity is said to be:
(a) Uniform (b) Variable
(c) Constant (d) All of these

18. If the speed or direction of the moving body changes with time then its velocity is said to be:
(a) Uniform (b) Variable
(c) Constant (d) All of these

19. Rate of change of velocity is known as:
(a) Distance (b) Speed
(c) Velocity (d) Acceleration

20. If the velocity of the body is increasing then its acceleration will be:
(a) Positive (b) Negative
(c) Uniform (d) Variable

21. If the velocity of the body is decreasing then its acceleration will be:
(a) Positive (b) Negative
(c) Uniform (d) Variable

22. If the velocity of a body is uniform then its acceleration will be:
(a) Positive (b) Negative
(c) Zero (d) Doubled

23. SI unit of acceleration is:
(a) ms^{-1} (b) kmh^{-1}
(c) kms^{-2} (d) ms^{-2}

24. If velocity of a body changes equally in equal intervals of time then its acceleration will be:
(a) Uniform (b) Variable
(c) Constant (d) Relative

25. The velocity and acceleration of a body moving with uniform speed in a circular path will be:
(a) In the same direction (b) In the opposite direction
(c) Mutually perpendicular (d) Equal

26. The direction of motion of body and acceleration is in same direction then acceleration will be:
(a) Uniform (b) Positive
(c) Negative (d) Zero

27. The direction of motion of body and acceleration is in opposite direction then acceleration will be:
(a) Uniform (b) Positive
(c) Negative (d) Zero

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28. The quantity which can be described by a number, with suitable unit only is called:
(a) Vector **(b)** Scalar
(c) Speed **(d)** Acceleration

29. The quantity which are described by magnitude as well as direction is called:
(a) Vector **(b)** Scalar
(c) Speed **(d)** Acceleration

30. In equations of motion, motion will always be taken along ---------- line:
(a) Circular **(b)** Straight
(c) Elliptical **(d)** None of above

31. In equations of motion, Acceleration will always be:
(a) Uniform **(b)** Variable
(c) Positive **(d)** Negative

32. In equations of motion, initial velocity will be taken as:
(a) Uniform **(b)** Variable
(c) Positive **(d)** Negative

33. In equations of motion, quantities in the direction of initial velocity are taken as:
(a) Uniform **(b)** Variable
(c) Positive **(d)** Negative

34. In equations of motion, quantities opposite to the direction of initial velocity are taken as:
(a) Uniform **(b)** Variable
(c) Positive **(d)** Negative

35. The slope of straight line in speed time graph gives the magnitude of
(a) Force **(b)** Displacement
(c) Torque **(d)** Acceleration

36. Series of experiments on free fall of heavy bodies was performed by:
(a) Newton **(b)** Einstein
(c) Galileo **(d)** Al-Kundi

37. When a body is falling freely under the gravity then in equations of motion 'a' is replaced by:
(a) m **(b)** d
(c) S **(d)** g

38. If a body is falling under the gravity then its initial velocity will be:
(a) Positive **(b)** Negative
(c) uniform **(d)** Zero

39. If a body is falling under the gravity then its gravitational acceleration will be:
(a) Positive **(b)** Negative
(c) Increasing **(d)** Zero

40. If a body is thrown vertically upward then its final velocity will be:
(a) Positive **(b)** Negative
(c) uniform **(d)** Zero

41. If a body is thrown upward, then its gravitational acceleration will be:
(a) Positive **(b)** Negative
(c) Increasing **(d)** Zero

42. A ball is dropped from the top of the tower. The distance covered by it in the first second is:
(a) 100m **(b)** 10m
(c) 50m **(d)** 5m

43. If a car is moving with uniform speed in a circle then its velocity will be:
(a) Uniform **(b)** Variable
(c) Zero **(d)** None of the above

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44. There are ---------- equations of motion which are used to solve the problems about the motion of bodies:

(a) 1 (b) 2
(c) 3 (d) 4

ANSWER KEY

Q	An	Q	An	Q	An	Q	An	Q.	Ans
1	d	1	b	2	b	3	a	41	b
2	a	1	d	2	c	3	c	42	d
3	a	1	a	2	d	3	c	43	b
4	b	1	b	2	a	3	d	44	c
5	d	1	a	2	c	3	d		
6	a	1	c	2	b	3	c		
7	c	1	a	2	c	3	d		
8	b	1	b	2	b	3	d		
9	b	1	d	2	a	3	a		
10	d	2	a	3	b	4	d		

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