

Chapter-1

Worksheet-1

Section 1

- Q1. Explain point of reference. How does it affect motion?
- Q2. Differentiate between Distance and Displacement. Give Examples
- Q3. Differentiate between Uniform and Non-Uniform Motion. Give Examples
- Q4. How does Velocity is different from Speed? How do we calculate average velocity?
- Q5. Define Acceleration. What is SI unit of Acceleration?
- Q6. What does slope of velocity-time graph represents?
- Q7. Draw velocity-time graph for accelerated motion? Name the graph obtained.
- Q8. What are the 3 equations of motion? Name each of them.
- Q9. When do we say an object is in uniform circular motion? Explain.
- Q10. What do you understand by centripetal force?

Section 2

- Q11. A particle is moving in a circular path of radius r . The displacement after half a circle would be:
- a) Zero
 - b) πr
 - c) $2r$

d) $r/2$

Answer: c

Q12. A body is thrown vertically upward with velocity u , the greatest height h to which it will rise is,

a) u/g

b) $u^2/2g$

c) u^2/g

d) u/g^2

Answer: b

Q13. The numerical ratio of displacement to distance for a moving object is

a) Always less than 1

b) Always equal to 1

c) Always more than 1

d) Equal to or less than 1

Answer: d

Q14. If the displacement of an object is proportional to square of time, then the object moves with

a) Uniform velocity

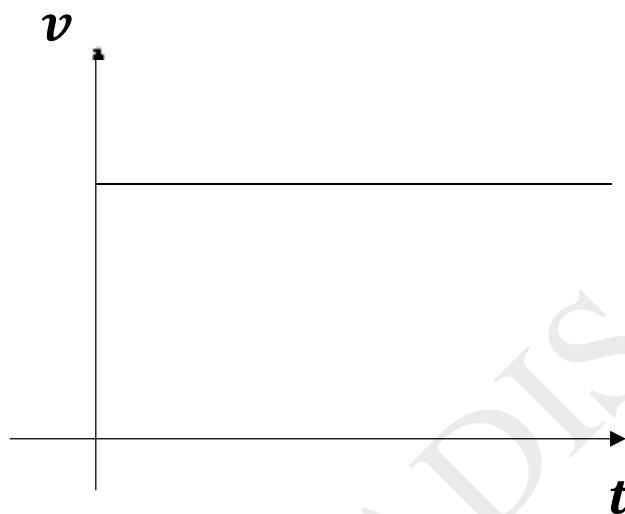
b) Uniform Acceleration

c) Increasing Acceleration

d) Decreasing Acceleration

Answer: b

Q15. From the given $v - t$ graph, it can be inferred that the object is



- a) In uniform motion
- b) At rest
- c) In non-uniform motion
- d) Moving with uniform acceleration

Answer: a

Q16. If a stone is tied to one end of the string and the string is rotated by holding it from other side with a constant speed of 15 ms^{-1} . This means the stone is in

- a) At rest
- b) Moving with no acceleration
- c) In accelerated motion
- d) Moving with uniform velocity

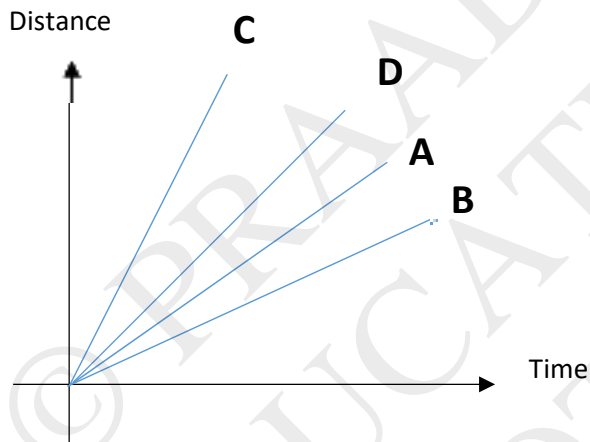
Answer: c

Q17. Area under $v - t$ graph represents a physical quantity. The SI unit of that quantity is:

- a) m^2
- b) m
- c) m^3
- d) ms^{-1}

Answer: b

Q18. Four cars A, B, C and D are moving on a levelled road. Their distance versus time graphs are shown in the adjacent figure. Choose the correct statement.



- a) Car A is Faster than car D
- b) Car B is the slowest
- c) Car D is faster than car C
- d) Car C is the slowest

Answer: b

Q19. Slope of a velocity-time graph gives

- a) The distance
- b) The displacement
- c) The acceleration
- d) The speed

Answer: c

Q20. In which of the following cases of motions, the distance moved and the magnitude of displacement are equal?

- a) If the car is moving on a straight road
- b) If the car is moving in Circular path
- c) The pendulum is moving to and fro
- d) The earth is revolving around the sun.

Answer: a

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