2 Lecture - PHY101

Important Mcqs

Which of the following is a vector quantity?

- A) Distance
- B) Time
- C) Displacement
- D) Speed

Answer: C) Displacement

What is the SI unit of velocity?

- A) Meter per second
- B) Second per meter
- C) Meter
- D) Meter squared

Answer: A) Meter per second

What is the formula for displacement?

- A) s = vt
- B) s = 1/2 at^2
- C) s = v + at
- D) s = vf vi

Answer: D) s = vf - vi

What is the difference between distance and displacement?

- A) Distance is a vector quantity while displacement is a scalar quantity.
- B) Distance is the change in position of an object while displacement is the total distance covered by the object.

- C) Distance is the total distance covered by an object while displacement is the change in position of the object.
- D) There is no difference between distance and displacement.

Answer: C) Distance is the total distance covered by an object while displacement is the change in position of the object.

Which of the following is true for uniform acceleration?

- A) The velocity of the object changes at a constant rate.
- B) The acceleration of the object changes at a constant rate.
- C) The displacement of the object changes at a constant rate.
- D) The speed of the object changes at a constant rate.

Answer: D) The speed of the object changes at a constant rate.

What is the equation for average velocity?

A)
$$v = ?t / ?s$$

B)
$$v = ?s / ?t$$

$$C) v = at$$

D)
$$v = a / t$$

Answer: B) $v = \frac{2}{3} / \frac{2}{3}t$

What is the acceleration due to gravity near the surface of the Earth?

- A) 9.8 m/s
- B) 9.8 m/s²
- C) 9.8 m/s³
- D) 9.8 m/s^{-1}

Answer: B) 9.8 m/s^2

Which of the following is not a type of motion?

- A) Uniform motion
- B) Circular motion

- C) Oscillatory motion
- D) Static motion

Answer: D) Static motion

What is the equation for average acceleration?

A)
$$a = ?v / ?t$$

B)
$$a = ?t / ?v$$

C)
$$a = v / t$$

D)
$$a = t / v$$

Answer: A) $a = \frac{v}{2t}$

Which of the following is true for an object in free fall?

- A) Its acceleration is zero.
- B) Its velocity is constant.
- C) Its acceleration is due to air resistance.
- D) Its acceleration is due to gravity.

Answer: D) Its acceleration is due to gravity.