

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) $s = \frac{1}{2} at^2$
- C) $s = v + at$
- D) $s = v_f - v_i$

Answer: D) $s = v_f - v_i$

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) $v = \Delta t / \Delta s$

B) $v = \Delta s / \Delta t$

C) $v = at$

D) $v = a / t$

Answer: B) $v = \Delta s / \Delta t$

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/s²

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) $a = \Delta v / \Delta t$

B) $a = \Delta t / \Delta v$

C) $a = v / t$

D) $a = t / v$

Answer: A) $a = \Delta v / \Delta t$

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.