

3 Lecture - PHY101

Important Mcqs

A car moves in a circular path of radius 100 meters with a constant speed of 10 m/s. What is the magnitude of the centripetal acceleration of the car?

- A. 1 m/s²
- B. 10 m/s²
- C. 100 m/s²
- D. 1000 m/s²

Answer: B. 10 m/s²

A ball is thrown horizontally from the top of a cliff with a speed of 20 m/s. If the cliff is 50 meters high, how far from the base of the cliff will the ball hit the ground?

- A. 100 m
- B. 150 m
- C. 200 m
- D. 250 m

Answer: C. 200 m

A person is standing at the edge of a cliff and throws a ball with a velocity of 30 m/s at an angle of 60 degrees with the horizontal. What is the horizontal component of the velocity of the ball?

- A. 15 m/s
- B. 25 m/s
- C. 30 m/s
- D. 35 m/s

Answer: A. 15 m/s

A car is traveling at a speed of 20 m/s and comes to a complete stop in 5 seconds. What is the magnitude of its acceleration?

- A. 4 m/s^2
- B. 5 m/s^2
- C. 10 m/s^2
- D. 20 m/s^2

Answer: C. 10 m/s^2

A ball is thrown vertically upwards with a speed of 20 m/s . What is the maximum height reached by the ball?

- A. 20 m
- B. 40 m
- C. 80 m
- D. 160 m

Answer: B. 40 m

A train is moving with a velocity of 40 m/s . If the train accelerates uniformly at 4 m/s^2 for 10 seconds, what is the final velocity of the train?

- A. 80 m/s
- B. 60 m/s
- C. 50 m/s
- D. 44 m/s

Answer: B. 60 m/s

A car starts from rest and accelerates uniformly at 5 m/s^2 for 10 seconds. What is the distance traveled by car?

- A. 125 m
- B. 250 m
- C. 500 m
- D. 1000 m

Answer: C. 500 m

A stone is thrown from the top of a building with an initial velocity of 20 m/s at an angle of 30 degrees with the horizontal. What is the range of the stone?

- A. 20 m
- B. 40 m
- C. 60 m
- D. 80 m

Answer: C. 60 m

A rocket is launched vertically upwards with an initial velocity of 100 m/s. What is the maximum height reached by rocket?

- A. 5000 m
- B. 10000 m
- C. 15000 m
- D. 20000 m

Answer: D. 20000 m

A ball is thrown horizontally from the top of a building with a velocity of 10 m/s. If the building is 100 meters high, how far from the base of the building will the ball hit the ground?

- A. 10 m
- B. 20 m
- C. 50 m
- D. 100 m

Answer: C. 50 m