5 Lecture - PHY101

Important Mcqs

What external force is used to counteract the motion caused by wind and earthquakes in skyscrapers?

A) Gravity

B) Friction

C) Dampers and braces

D) Electric fields

Answer: C) Dampers and braces

Which law of motion is relevant in the sport of baseball?

A) Newton's first law

B) Newton's second law

C) Newton's third law

D) None of the above

Answer: B) Newton's second law

What principle is behind rocket propulsion?

A) Newton's first law

B) Newton's second law

C) Newton's third law

D) None of the above

Answer: C) Newton's third law

How do jet engines operate based on Newton's third law of motion?

A) By expelling exhaust gases at low speed in one direction

B) By expelling exhaust gases at high speed in one direction

C) By attracting particles towards the engine

D) By rotating rapidly in the opposite direction

Answer: B) By expelling exhaust gases at high speed in one direction

What is the significance of Newton's laws of motion in daily life?

A) They have no significance in daily life

B) They are only relevant for scientists and engineers

C) They have a wide range of applications in daily life

D) They are only relevant in outer space

Answer: C) They have a wide range of applications in daily life

What is the law of inertia?

A) Newton's first law of motion

B) Newton's second law of motion

C) Newton's third law of motion

D) None of the above

Answer: A) Newton's first law of motion

What is the force acting on an object equal to, according to Newton's second law of motion?

A) Mass divided by acceleration

B) Acceleration divided by mass

C) Mass multiplied by acceleration

D) Velocity multiplied by time

Answer: C) Mass multiplied by acceleration

What external force acts on passengers in a car during a sudden stop?

A) Friction

B) Gravity

C) Seat belts

D) None of the above

Answer: C) Seat belts

How is Newton's third law relevant in the launch of spacecraft?

A) The force of gravity propels the spacecraft

B) The force of the exhaust gases propels the spacecraft

C) The force of electric fields propels the spacecraft

D) None of the above

Answer: B) The force of the exhaust gases propels the spacecraft

How do engineers ensure the stability of skyscrapers?

A) By applying external forces to the building

B) By increasing the mass of the building

C) By reducing the height of the building

D) By making the building wider at the base

Answer: A) By applying external forces to the building