5 Lecture - PHY101

Important Mcqs

What external force is used to counte	ract the motion caus	sed 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