Title	Topic	Country	Class/Grade
Laws Of Motion Subjective Assessment	Laws Of Motion	India	11th

Curriculum	Subject
CBSE	Physics

Laws of Motion Subjective Assessment

Created By Afia Siddiqui

Total Questions: 5

Total Marks: 20

How to use rubrics

- **Review Answers Against Rubrics:** For each question, compare the student's answer to the rubric, determining the level of completeness and accuracy based on the criteria provided.
- **Award Marks Accordingly:** Assign marks as dictated by the rubric, ensuring to note partial marks where the criteria are partially met for questions worth more than one mark.
- **Provide Feedback:** Use the space next to each question or a separate feedback form to offer constructive comments, highlighting strengths and areas for improvement.
- **Summarize Performance:** Total the marks for all questions to get the overall score. Use this score, along with specific feedback on each question, to guide a comprehensive review session with the student, focusing on areas that need reinforcement.

4 Marks Questions

Question 1

State Newton's First Law of Motion. Explain its concept with an example.

- (1 Mark): States Newton's First Law of Motion correctly.
- (2 Marks): Provides a clear explanation of the concept of inertia.
- (3 Marks): Gives a relevant real-life example that illustrates the principle of inertia.
- (4 Marks): Provides a comprehensive explanation with a well-suited example, demonstrating a clear understanding of the law.

Question 2

A car of mass 1000 kg is moving with a velocity of 10 m/s. What is the force required to stop the car in 5 seconds?

- (1 Mark): Identifies the given values (mass, initial velocity, final velocity, time).

- (2 Marks): Applies the relevant equation (either $F = ma$ or $F = \frac{mv - mu}{t}$).
- (3 Marks): Performs the calculation correctly.
- (4 Marks): Provides the correct answer with the appropriate unit (Newtons).

Question 3
Differentiate between mass and weight. Which of these remains constant regardless of the location?

- (1 Mark): Provides a basic definition of mass.
- (2 Marks): Provides a basic definition of weight.
- (3 Marks): Explains the key difference between mass and weight, highlighting the dependence of weight on gravitational acceleration.
- (4 Marks): Clearly states that mass remains constant regardless of location.

Question 4
Explain the concept of momentum. A cricket ball of mass 0.15 kg is moving with a velocity of 20 m/s. Calculate its momentum.

- (1 Mark): Provides a definition of momentum.
- (2 Marks): States the correct formula for momentum ($p = mv$).
- (3 Marks): Correctly substitutes the given values of mass and velocity.
- (4 Marks): Calculates the momentum accurately and expresses it with the correct unit (kg m/s).

Question 5
State Newton's Third Law of Motion. Give two examples to illustrate the law.

- (1 Mark): Correctly states Newton's Third Law of Motion.
- (2 Marks): Provides one relevant example that demonstrates action-reaction pairs.
- (3 Marks): Provides a second relevant example that demonstrates action-reaction pairs.
- (4 Marks): Provides clear and concise examples, demonstrating a good understanding of the law.