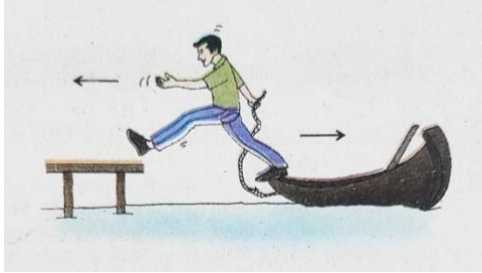


CBT QUESTIONS FOR CLASS IX SCIENCE

Q1-When you jump from a boat to the shore, the boat moves backwards. This is due to:



- A. Newton's First Law
- B. Newton's Second Law
- C. Newton's Third Law
- D. Law of Conservation of Energy

Q(2)Which law states that a body continues in its state of rest or motion unless acted upon by an external force?

- A. Newton's First Law
- B. Newton's Second Law
- C. Newton's Third Law
- D. Law of Gravitation

Q(3) What is the formula given by Newton's Second Law of Motion?

- A. $F = m \times v$
- B. $F = m \times a$
- C. $F = a / m$
- D. $F = m / a$

Q4- If you double the force on an object while keeping mass constant, the acceleration will...

- A. Remain the same
- B. Double
- C. Halve
- D. Become zero

Q(5)A car is initially at rest at a traffic light. When the light turns green, the driver steps on the accelerator, and the car begins to move forward. The passengers feel a slight push backward into their seats as the car accelerates.

After a few seconds, the car reaches a constant speed. Suddenly, the driver slams the brakes to avoid hitting an animal on the road, causing the passengers to lurch forward.

. Which of Newton's laws explains why the passengers are pushed backward when the car starts moving?

- A. First Law of Motion
- B. Second Law of Motion
- C. Third Law of Motion
- D. Law of Gravitation

Q6-Plants are made up of different types of tissues that perform specific functions. Broadly, plant tissues are classified into two main types: **meristematic tissue** and **permanent tissue**. Meristematic tissues consist of actively dividing cells and are found in regions of plant growth, such as the tips of roots and shoots. In contrast, permanent tissues are made up of cells that have lost the ability to divide and are specialized to perform specific tasks. Permanent tissues can be **simple** (made of one type of cell) like **parenchyma**, **collenchyma**, and **sclerenchyma**, or **complex** (made of different types of cells), such as **xylem** and **phloem**, which are responsible for transporting water and food, respectively.

Question:

Based on the paragraph above, which of the following statements is **correct**?

- A) Meristematic tissues are responsible for transporting water and food in plants.
- B) Parenchyma and collenchyma are examples of complex permanent tissues.
- C) Xylem and phloem are permanent tissues that help in the transport of substances.
- D) Permanent tissues are found only at the tips of roots and shoots.

Q7-Which of the following tissues is found at the tips of roots and shoots?

- A) Lateral meristem
- B) Intercalary meristem

- C) Apical meristem
- D) Collenchyma

Q-8 observe and Identify the following picture



- A) Collenchyma
- B) Sclerenchyma
- C) stomata
- D) Phloem

Q9-Assertion (A): Cardiac muscles do not get fatigued.

Reason (R): Cardiac muscles have multiple nuclei and are voluntary.

Options:

- A. Both A and R are true, and R is the correct explanation of A.
- B. Both A and R are true, but R is not the correct explanation of A.
- C. A is true, but R is false.
- D. A is false, but R is true.

Q10-Assertion (A): Tendons connect muscles to bones.

Reason (R): Tendons are made of smooth muscles.

Options:

- A. Both A and R are true, and R is the correct explanation of A.
- B. Both A and R are true, but R is not the correct explanation of A.
- C. A is true, but R is false.
- D. A is false, but R is true.

ANSWER KEY

(1) C. Newton's Third Law

Reason-to ever action, there is an equal and opposite reaction and the act on two bodies.

(2) A. Newton's First Law

Reason- An object continues to be in a state of rest or in uniform motion along a straight line unless acted upon by an unbalanced force.

(3) B, $F=ma$

Reason- force is the product of mass and acceleration.

Q4- (B) Double.

Reason- If you double the force on an object while keeping mass constant, the acceleration will...

(5) A

Explanation: Newton's First Law (Inertia) states that objects resist changes to their motion. The passengers tend to stay at rest while the car starts to move forward.

(6) C)

Explanation: Xylem and phloem are complex permanent tissues that transport water and food. Options A and B incorrectly classify tissue types, and D describes meristematic tissue, not permanent tissue.

(7) C) Apical meristem,

Reason – Apical meristem is a growing tissue.

(8) (C) Stomata.

Reason- Stomata are the tiny pores found on the lower side of the plant leaves.

(9) C A is true, but R is false.

(Explanation: Cardiac muscles **do not get fatigued**, but they are **involuntary** and have **one or two nuclei**, not multiple like skeletal muscles.)

(10) C A is true, but R is false.

(Explanation: Tendons are made of **dense connective tissue**, not smooth muscles.)