| Name: _____ | **Subject:** Physics | **Class:** 9th | **Time:** 80 minutes | Total Marks: | **40** |
|---|---|---|---|---|---|
| **Chapter No.3** | | MJDexpert.com | | Obtained marks | |

**Note:** Please attempt any 10 short questions from Question 2. Also, attempt both parts
(a and b) of Question 3. Cutting and removal of any content is strictly prohibited.

**Q.1: Tick (✔) the correct answer.**

1. **The coefficient of friction between wood and concrete is:**
   A) 0.8      B) 0.2      C) 0.9      D) 0.62
2. **The unit of weight in the International System of Units is:**
   A) Dyne      B) Kilogram      C) Pound      D) Newton
3. **When a horse pulls a cart, the action is on the:**
   A) Cart      B) Horse      C) Earth      D) Earth and cart
4. **Centripetal force always acts _____ to the motion of a body:**
   A) Opposite      B) Parallel      C) Perpendicular      D) Upward
5. **Newton's first law of motion is valid only in the absence of:**
   A) Momentum      B) Friction      C) Net force      D) Force
6. **The centripetal acceleration is inversely proportional to:**
   A) Mass      B) Velocity      C) Radius      D) Mass and radius
7. **Inertia depends upon:**
   A) Force      B) Net force      C) Mass      D) Velocity
8. **In an isolated system, the momentum after the collision of two bodies is:**
   A) Increases      B) Constant      C) Decreases      D) Zero
9. **The force that opposes the motion of a body is:**
   A) Momentum      B) Friction      C) Power      D) Work
10. **The SI unit of momentum is:**
    A) Newton-second      B) Kilogram meter per second      C) Joule      D) Newton meter

**Q.2: Write short answers to any ten (10) of the following questions:**

1. **How can you relate a force with the change of momentum?**
2. **Define force and write its unit.**
3. **The weight of a body is 147N. What is its mass?**
4. **Define momentum and write the formula.**
5. **Write two advantages and two disadvantages of friction.**
6. **Define inertia. Describe two examples of inertia.**
7. **What is meant by the coefficient of friction?**
8. **State the law of conservation of momentum.**
9. **Write differences between mass and weight.**
10. **Write two ways to reduce friction.**
11. **How does a cream separator work?**

**Q.3: Answer the following questions:**

1. **State and explain Newton's first law of motion.**
2. **Define and prove the law of conservation of momentum.**