Newton's Laws of Motion
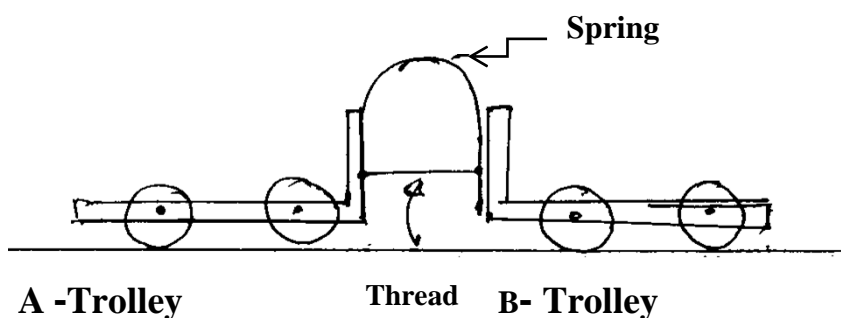
1. Same size of 2 trollies are placed on a flat surface. Trolley A is clamping via spring and attach to a thread as follows.

A -Trolley　　　　**Thread**　**B- Trolley**

   (a) What is the observation that can be seen after cutting the thread.
   (b) What is the force act on the trolley B?
   (c) What is the force act on the trolley B

2. Mention the Newton's third law.

3. State 3 instances where motion is occurred due to the reaction force.
4. What is momentum?
5. State an expression for momentum.

6. What is the SI unit of momentum?
7. If the mass of an object is 5Kg, find the momentum at the below given velocities.
   (I) At the velocity of $0 ms^{-1}$
   II) At the velocity of $10 ms^{-1}$
   (III) At the velocity of $15 ms^{-1}$

8. Mention the differences between mass and weight.

characteristics	mass	weight
introduction		
Unit		
Vector		

9. Complete the relationship between mass, weight and gravitational acceleration.

Weight = …………×…………

10. Complete the following table.

Weight	Mass
10N	
	2kg
5N	
	200g