**SAINIK SCHOOL GOPALGANJ**

SCIENCE( PHYSICS ) Class IX ,

ASSIGNMENT-2 CHAPTER- Forces and Laws of motion

1.What do you mean by a force?

2.Give an example of a balanced force?

3.Can force change the shape of an object? Give an example to prove your point?

4.Do action and reaction force react in the same direction?

5.Why a moving ship does takes longer time as compared to a car when equal breaks are applied?

6.Why are passengers through in forward direction when a running bus stops suddenly?

7.Why do passengers tend to fall sideways when the bus takes a sharp u turn?

8.Why should a passenger hold on to prevent himself from swaying in a turning bus?

9.Why do passengers tend to fall back when it starts suddenly?

10.Why do passengers jumping out of a rapidly moving bus fall forward with his face downwards, if he does not run forward?

11. Why does a passenger jumping out of a rapidly moving bus fall forward with his face downwards?

12.Why can dust be removed by shaking it, or beating it by a carpet?

13. Why does a bullet when fired against a glass window pane make a hole in it, and the glass pane will smash it?

14.Why does an athlete take a longer jump if he comes running from a distance than when he jumps suddenly from the take-off line?

15.What happens when you shake a wet piece of cloth? Explain, why?

 16.Why is it advised to tie a rope on the luggage while you travel by the bus?

 17.How does a boat move forward into the water when the boatman presses one end of the pole against the ground?

18. Why is it difficult for a fireman to hose, which ejects large amount of water at a high velocity?

 19.How much force is needed to accelerate a trolley of mass 20g through 1 m/s2?

 20.A force of 100N acts on a mass of 25 kg for 5 s .What velocity does it generate?