

## I. Very short answer type:

- 1) Define uniform & non uniform velocity?
- 2) Write any three differences between speed & velocity?
- 3) What is the name of the instrument used to measure speed in automobiles?
- 4) When will you say a body is in uniform acceleration?

## II. Short answer type:

- 1) Why do you fall in the forward direction when a moving bus brakes to a stop and fall backwards when it accelerates from rest?
- 2) Define balanced & unbalanced forces?
- 3) A ball while rolling down an inclined plane has an acceleration of  $4 \text{ cm/s}^2$  . What will be the velocity after 5s after the start?

## III. Long answer type:

- 1) Derive an expression  $v = ut + at$  by graphical method.
- 2) Draw velocity time graphs of the object moving in uniform acceleration & non uniform acceleration and define them.
- 3) A train is travelling at a speed of  $90 \text{ km/h}$ . Brakes are applied so as to produce a uniform acceleration of  $-0.5 \text{ m/s}^2$  . Find how far the train will go before it comes to rest?