SARALA BIRLA PUBLIC SCHOOL

Mahilong, Ranchi.

Revision Test (Physics)

Class - IX

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1. A ball is thrown vertically upwards. What is its momentum at the highest point?
2. Draw velocity-time graph for the following cases:
   a) When the object is at rest.
   b) When the object is thrown vertically upward.
3. An object is moving with uniform speed in a circle of radius r. Calculate the distance and displacement
   a) When it completes half of the circle?
   b) When it completes full circle?
   c) What type of motion does the object possess?
4. State Newton's second law of motion and derive an expression for calculation of force.
5. A hammer of mass 500g, moving at 50m/s, strikes a nail. The nail stops the hammer in a very short time of 0.01sec. What is the force of the nail on the hammer?
6. Write four differences between mass and weight.
7. Derive an expression for acceleration due to gravity on the surface of earth in terms of mass M and radius of earth R.
8. Derive third equation of motion $v^2 = u^2 + 2aS$ graphically.