

Worksheet subject-physics class-9

1. Define
 - a) uniform circular motion
 - b) inertia
 - c) balanced forces
 - d) unbalanced forces
2. Derive the equation of motion for
 - a) velocity-time relation
 - b) position-time relation
 - c) position-velocity relation by graphical method
3. Draw the
 - a) distance-time graph for
 - i) body at rest
 - ii) body having uniform motion
 - ii) having non-uniform motion
 - b) velocity-time graph for
 - i) uniformly accelerated motion
 - ii) uniform retardation
 - iii) non uniform accelerated motion
4. A car acquires a velocity of 72 km/h in 20 seconds starting from rest. FIND
 - a) the acceleration
 - ii) the distance travelled in this time
5. A car has a uniform acceleration of 4m/s^2 . What distance will it cover in 5 seconds after start?
6. A train running at 108km/h is brought to a halt in 2 minutes. Calculate the retardation produced by the application of the brakes.
7. i) give reason :
 - a) a person jumping out of a moving bus may fall forward
 - b) some of the leaves get detached from a tree when we shake it's branch vigorouslyii) Name & state the law which explains the above
8. What is the measure of inertia of a body in linear motion? which has more inertia
 - i) a rubber ball or stone of same size? Why?
 - ii) a five rupee coin or a one rupee coin? Why?