RAMAGYA SCHOOL, NOIDA
XI A/PHYSICS/2017-18
PRACTICE WORKSHEET (APRIL-MAY)

1. The number of significant figures in 0.06900 is _____
2. The sum of the numbers 436.32, 227.2 and 0.301 in appropriate significant figures is _____
3. The mass and volume of a body are 4.237 g and 2.5 cm^3, respectively. The density of the material of the body in correct significant figures is _____
4. The numbers 2.745 and 2.735 on rounding off to 3 significant figures will give _____
5. Why length mass and times are chosen as base quantities in mechanics?
6. Give an example of
    a. A physical quantity which has a unit but no dimensions.
    b. A physical quantity which has neither units nor dimensions.
    c. A constant has a unit.
    d. A constant which has no unit.
7. Differentiate between fundamental and derived units. Give examples also.
8. The displacement of a particle is given by x = (t - 2)^2 where x is in meters and t in seconds. The distance covered by the particle in first 4 seconds is _____
9. A uniformly moving cricket ball is turned back by hitting it with a bat for a very short time interval. Show the variation of its acceleration with time. (Take acceleration in the backward direction as positive).
10. A ball is dropped from a building of height 45 m. Simultaneously another ball is thrown up with a speed 40 m/s. Calculate the relative speed of the balls as a function of time.
11. The average wavelength of the yellow light emitted from a sodium lamp is 5893 Å. Express it in nanometers.
12. Convert 10 newton into dyne using dimensional analysis.
13. Convert 5 joule into erg using dimensional analysis.
14. Check the correctness of the relation,   v = √ (2GM / R)
15. How does the wavelength is associated with a moving particle depends upon its mass, velocity and Planck's constant.
16. What do you mean by frame of reference? Distinguish between inertial and non-inertial frames of reference.
17. Distinguish between kinematics and dynamics.
18. Name and define the types of motion, a body can have.
19. Draw x-t graph for a body moving with uniform velocity. What does its slope represents.
20. Draw v-t graph for a body moving with uniform velocity. What does area under this graph represents.
21. Give two examples of bodies having zero velocity but constant acceleration.