HOLIDAY HOME WORK

WORKSHEET

PHYSICS

PHYSICAL QUANTITIES AND MEASUREMENT

1. What is measurement ? How is a measurement expressed ?
2. State two smaller units of volume. How are they related to the S.I. unit?
3. State the S.I. and C.G.S. units of density. How are they inter related ?
4. A cubical tank of side 1 m is filled with 800 kg of a liquid. Find: (i) the volume of tank, (ii) the density of liquid in kg m^{-3}
5. The mass of a lead piece is 115 g. When it is immersed into a measuring cylinder, the water level rises from 20 ml mark to 30 ml mark. Find: the volume of the lead piece & the density of the lead in kg m^{-3}.

MOTION

6. How does a rotatory motion differ from the circular motion?
7. Differentiate between periodic and non-periodic motions by giving an example of each.
8. Define the term weight and state its S.I. unit.
9. A boy walks a distance 30 m in 1 minute and another 30 m in 1.5 minute. Describe the type of motion of the boy and find his average speed in m s^{-1}.
10. A car travels with speed 30 km h-1 for 30 minute and then with speed 40 km h-1 for one hour. Find : the total distance travelled by the car ,the total time of travel, and the average speed of car.

ENERGY

11. State two factors on which the potential energy of a body at a certain height above the ground depends.
12. Can a body possess energy even when it is not in motion ? Explain your answer with an example.
13. State the changes in form of energy while producing hydro electricity.
14. What do you mean by conservation of mechanical energy? State the condition when does it hold.
15. Give one example to show the conversion of potential energy to kinetic energy when put in use.

LIGHT ENERGY

16. Draw a diagram to show the reflection of a light ray incident normally on a plane mirror.
17. Draw a ray diagram showing the formation of image of a point object by a plane mirror.
18. State four characteristics of the image formed by a plane mirror.

19. What is irregular reflection ? Give an example.
20. A rose appears red in white light. How will it appear in
    (i) green light, (ii) red light ? Give a reason for your answer for each.