

1. Calculate the volume, mass and number of molecules of hydrogen liberated when 230g of sodium reacts with excess of water at S.T.P. (atomic mass of Na = 23U, O = 16U and H = 1U).
2. During winter season you wear woolen clothes to keep your body warm. How woolen clothes helps us keep our body warm.
3. Suresh can see the objects clearly which are beyond 3m. So he consulted the doctor and the doctor suggested him some lens.
 - a) What type of eye defect he has?
 - b) What kind of lens, doctor suggested him to overcome the eye defect?
 - c) What is the focal length of the lens?
4. Explain a chemical reaction to show the difference between Ethyl alcohol and Acetic Acid?
5. We can't perform the experiment of green plants by keeping them in sunlight and do the respiratory experiment. Why?
6. Write the differences between homologous and analogous organs.?
7. What Questions do you ask the doctor to know the Contagious means to got HIV? Write them.
8. Write any four Contexts that you save the electrical Consumption at home.
9. When respiration takes when place, where will the energy goes from Glucose. Padma wrote 'Lungs' and Veni wrote "Muscles". Who is correct? Why ?
10. The farmers of your locality are using chemical fertilizers. But suggested them to use natural fertilizers. Prepare a pamphlet to explain the need of Bio fertilisers.
11. Draw a well labeled diagram of Nephron and explain the ultra-filtration
12. What happens when you keep a potted plant at your window ? Write your reasons.
13. Write the differences between Arteries and veins in a format depending upon the Capillary walls, valves, blood flow in capillary, blood pressure over the capillaries.
14. Draw a well labelled diagram of villi of small intestine and write its main function.
15. Prepare four slogans on the need of protection of our environment
16. An electric installation of 100 lamps each drawing 0.2 amp current at 220 V supply. Find the cost of working of installation for a month of 30 days at 5 hours per day, if the energy used costs at Rs. 2 per unit.
17. State the properties and uses of Junction Transistor.
18. What is simple harmonic motion? Write down its characteristics?
19. Distinguish between orbit and orbital.
20. Compare the properties of α , β and γ radiations.