ICSE Class 9 Chemistry Important Questions

1. Define:
    a. Photochemical reaction
    b. Electrochemical reaction

    Give one example in each case.

2. When 8.4 g of potassium bicarbonate is added to a dilute solution of hydrochloric acid weighed as 20 g, it is observed that 4.4 g of CO_2 is released into the atmosphere. The residue left behind is 24 g. Show that these observations are in accordance with law of conservation of mass.

3. What is decomposition? Support your answer by an example.

4. State and explain Boyle's law with the help of graphical verification.

5. Draw the orbit structure and electron dot diagrams of NaCl, and $MgCl_2$.

6. Write the chemical formula of the sulphates of aluminium, ammonium and zinc.

7. Why does the salt content in cooked vegetable remain the same, irrespective of whether the cooked food is hot or cold?

8. Explain exothermic and endothermic reactions with suitable examples.

9. Describe Bohr's atomic model of an atom.

10. How are chlorofluorocarbons decomposed?

11. The volume occupied by a certain gas was found to be 5.6 dm3 at 2 atmospheric pressure. If the pressure is increased by 20%, find the new volume of the gas.

12. 100 cm3 of a gas at 27°C is cooled to 20°C at constant pressure. Calculate the volume of gas at 20°C.

13. Write the main causes of acid rain.

14. What are the merits of Mendeleev's periodic table?

15. Three elements 'A', 'B' and 'C' have atomic numbers 4, 12 and 19, respectively. State the electronic configuration and the number of valence electrons in each element.

16. Explain the distribution of electrons in Bohr's model of an atom.

17. State the position of hydrogen in the modern periodic table.

18. At a constant temperature, a gas at a pressure of 750 mm of mercury occupies a volume of 100 cm3. If the volume is decreased by 40%, then find the new pressure.

19. 2.5 dm3 of dry nitrogen gas is collected at a temperature of 27°C and a pressure of 740 mm of mercury. Find the volume of the gas at STP.

20. Which chemicals are responsible for the depletion of the ozone layer? Explain in detail.