Preliminary Examination

Chemistry IX   **Section A (12 Marks)**

Section A (12 Marks)

1. 2 moles of $CaCO_3$, is equal to

a. 100g   b.200g   c. 88gm   d. 160g

2. NA represents

a. Avogadro's Number   b. mass number   c. atomic number   d. mole

3. Benzene has molecular formula C_6H_6. Its empirical formula will be

a. $C_{12}H_{12}$ b. C_6H_6 c. C_2H_2 d. CH

4. In Rutherford's experiment very few alpha particles are

a. un deflected   b. Deflected at large   c. bounced   d. none of these

5. Which one of these groups can make Doberiener's triads?

a. Li, Na, K   b. C, Br, S   c. Ar, Sr,I   d. tn, Se, Ca

6. The number of noble gases are?

a. 2   b. 8   c. 6   d. 4

7. Which one of these metals occurs in liquid form at room temperature?

a. Mercury   b. Chlorine   c. Barium   d. None of them

8. The shared pair of electrons which links the atoms in a molecule is known as _____ bond:

a. Co-ordinate covalent   b. Covalent bond   c. Electro-valent   d. Chemical bond

9. In molten state ionic compounds are

a. Good conductors   b. bad conductors   c. non conduct   d. insulators

10. The continuous and zigzag movement of suspended particles in a medium is called:

a. Variable movement   b. Constant movement   c. Uniform movement   d. Brownian movement

11. How many types of solutions are produced on mixing solid, liquid and gas?

a. 8   b. 6   c. 9   d. 6

12. One liter is equal to:

a. 100 cm^3 b. 10 cm^3 c. S00 cm^3 d. 1000 cm^3

Section B (24 Marks) ✿ pakcity.org

Note: Attempt any eight from this section each question carry three marks

Q1) Give three differentiate between mixture and compound

Q2) How many Proton, Neutrons and Electron are present in the following atoms?

1. $^{23}_{11}Na$ 2. $^{16}_{8}O$ 3. $^{12}_{6}C$
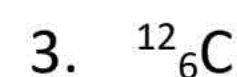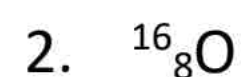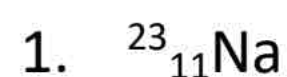
Q3) Describe the Schrodinger atomic model

Q4) A solution of 20cm³ of alcohol is dissolved in 80cm³ of water. Calculate the concentration (v/v) of this solution.
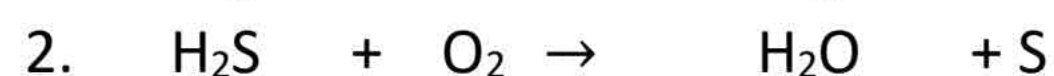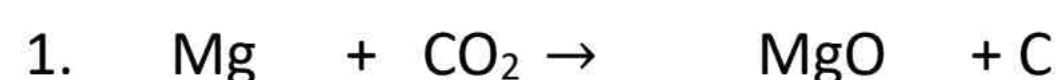
Q5) Distinguish polar and non-polar bond.

Q6) Differentiate between oxidation and reduction reaction

Q7) Give three differentiate between Amorphous and crystalline solid

Q8) Give three properties of sodium or give three uses of sodium.

Q9) Balance the given chemical reaction

1. Mg + CO_2 → MgO + C
2. H_2S + O_2 → H_2O + S
3. NH_3 + Cl_2 → N_2 + HCl

Q10)   A 600 ml sample of gas is heated from 27 ℃ to 77 ℃ at constant pressure. What is the final volume?

Q11)   What is Coordinate Covalent Bond or Dative Covalent Bond? Define the Intermolecular forces and Hydrogen Bonding

Q12)   Discus two methods for prevention form corrosion.

Section C (24 Marks)

Note: Attempt any four from this section each question carry six marks

Q13)   State and explain Charles's law. Also establish a relation between volume and temperature of a gas

Q14)   Define solubility. Give the general principles of solubility.

Q15)   State Faraday's first law of Electrolysis. Also explain it. State Faraday's second law of Electrolysis.

Q16)   Write shote note on dry cell. Also draw figure of dry cell

Q17)   Discuss Rutherford gold metal foil experiment in the light of structure of atom.

Q18)   Discuss in detail the long form of periodic table.