CHEMISTRY 11 EXAMINATION REVIEW SHEET JAN 2015

Exam Duration: 2 hrs
Exam Format: 1. Multiple choice Questions
2. Short answer Type Questions

For your exam preparation, please review your study notes, quizzes, tests and textbook problems.

Unit 1: Matter & Chemical Bonding

1. Physical & Chemical changes in matter
2. Atomic Structure and its related theories
3. Periodic Laws
4. Periodic trends(AR, EA, IE, Electronegativity, metallic properties)
5. Types of Chemical bonding(Ionic vs. Covalent)
6. Lewis dot diagram of compounds
7. VSEPR theory

Unit 2: Chemical reactions

1. Nomenclature – polyatomics, oxyacids
2. Balancing equations
3. Types of chemical reactions(Synthesis, Decomposition, Single displacement, Double displacement)
4. Combustion – complete and incomplete
5. Neutralization as special type of double displacement
6. Carbonates (decomposition)
7. Activity series
8. Solubility Rules
9. Writing a net- ionic equations

Unit 3: Quantities in Chemical reactions

1. Isotopes and average atomic mass
2. Importance of mole(n)
3. Moles to no. of particles(N) conversions
4. Molar mass (M) calculations
5. moles to mass(m) calculations
6. Laws of Chemistry(Law of definite proportion, Law of multiple proportion)
7. Percentage composition of a compound
8. Calculate empirical & molecular formula
9. Stoichiometric problems(mole, mass and particle calculations from the chemical equations)
10. Limiting & excess reagent calculations
11. Calculate the percent yield
12. Determine the actual, theoretical yield of a reaction

Unit 4: Solutions and Solubility

1. Types of solutions
2. Factors affecting rate of solubility(in solids, liquids and gases)
3. Solubility curve
4. Inter and intramolecular force to explain solutions
5. Electrolytes and non- electrolytes
6. Conc. of solution(m/v%, m/m%, v/v%, ppb, ppm)
7. Molar concentration
8. Preparing standard solution calculations
9. Preparing solutions by dilution($C_1V_1=C_2V_2$)
10. Stoichiometry problems involving solutions
11. Properties of acids & bases
12. Arrhenius theory and its limitations
13. Brønsted – Lowry Theory
14. Conjugate acid- base pairs
15. pH & pOH calculations
16. Neutralization reactions
17. Acid- Base titrations & calculations

Unit 5: Gases and Atmospheric Chemistry

1. Kinetic molecular theory
2. Boyle Law($P_1V_1=P_2V_2$)
3. Charles Law($V_1T_1=V_2T_2$)
4. Gay- Lussac Law ($P_1/T_1= P_2/T_2$)
5. Combined gas law($P_1V_1/T_1= P_2V_2/T_2$)
6. Dalton's Law of partial pressure
7. Avogadro's Law($n_1V_1=n_2V_2$)
8. Ideal Gas Law(PV=nRT)
9. Graphical and mathematical representation of Gas Laws
10. Units for Pressure, Temperature; converting between different units
11. Values of T, P at STP & SATP

Good Luck for your preparation