

## Govt. Cadet College Muzaffarabad

### Entry Test Syllabus General Science (Chemistry) for Class-8<sup>th</sup>

#### Aims and Objectives:

Chemistry is a fundamental branch of Science. It deals with structure and properties of all visible matter. Main aim is to check the understanding level and basic concepts of the kids about matter, structure of matter and its composition. This basic Science is the part of all major tests of professional colleges. Entry Test of CCM will consist of objective type and short questions to check the writing and conceptual abilities of the students. This basic test provides a link between the middle and secondary level scientific knowledge.

#### **Course Contents:**

- a. Structure of Atom and Molecule
  - Concept of shell and subshell
  - Representation/Symbols of shells and sub shells
  - Fundamental particles: electron, proton and neutron
- b. Concept of Chemical Reactions
  - Definition and example of chemical reaction
  - Evidence of chemical change
- c. Types of Chemical reactions
  - Combustion reaction, Oxidation reaction, Reduction reaction, Displacement reaction, Decomposition reaction, Neutralization reaction and Precipitation reaction
- d. Solution and its Main Types
  - Concept of solvent and solute
  - Saturated and Unsaturated solution
  - Concentrated and Dilute solution
  - Suspension
  - Colloids
- e. Environment
  - Definition and concept of environment
  - Components of environment
  - Concept of atmosphere

- Layers of atmosphere
- Concentration of gases (CO<sub>2</sub>, O<sub>2</sub>, Ar) in different layers
- f. Pollution and its Types
  - Definition and concept of pollution
  - Pollutants and Types of pollution e.g., air pollution, water pollution etc.
  - Causes of different types of pollution
  - Adverse effects of pollution on human beings, plants and animals
- g. Ozone Hole and its Impacts on Environment
  - Definition and concept of Ozone hole
  - Causes of Ozone hole
  - Adverse effects of Ozone hole
- h. Green House Effect
  - Definition and concept of Greenhouse effect
  - Causes of Greenhouse effect
  - Advantages and disadvantages of Greenhouse effect
- i. Concept of Acid and Base/Alkali
  - Definitions and concept of acid and base
  - Concept of pH and pOH
  - Concept of Acid rain and its causes
  - Adverse effects of acid rain on life of plants and animals