ENTRANCE EXAM PROGRAM: CHEMISTRY

Structure of Matter

Chemical Reaction

Solutions

Main Classes of Inorganic Compounds
**Hydrogen and its Compounds**


**Halogens and their Compounds**


**Group VIA Elements**

General Characteristics of the Group VIA of the Periodic Table.


**VA Group Elements**


**Group IVA Elements**

General Characteristics of Metals


Properties of Group IA and Group IIA Metals


Properties of Aluminum


Properties of Iron and some d-elements


Introduction to Organic Chemistry


**Alkanes**


**Unsaturated Hydrocarbons**

Cyclic Hydrocarbons


Alcohols and Ethers


**Phenols**


**Aldehydes and Ketones**


**Carboxylic Acids and their Functional Derivatives**


**Fats**


**Carbohydrates**


**Amines**

(Secondary, Tertiary Amines and Cations Tetraalkylammonium); Reduction of Nitro Compounds (Primary Amines).

Application of Amines.

**Amino Acid. Proteins**


**Heterocyclic Compounds. Nucleic Acid**


**Synthetic High-Molecular Substances**