УТВЕРЖДАЮ
Первый проректор учреждения образования «Гродненский государственный медицинский университет»,
доцент
_____ В.В. Воробьев
_____ 2020

Перечень вопросов для вступительного собеседования для иностранных граждан, поступающих на факультет иностранных учащихся с английским языком обучения

LIST OF TOPICS FOR ADMISSION TESTING IN ENGLISH

ENGLISH GRAMMAR

1. Verb Tenses (Active and Passive)

- Simple/Indefinite Tenses
- Continuous Tenses
- Perfect Tenses
- Perfect Continuous Tenses

2. Verb forms

- Infinitive
- Gerund
- Participle

3.Modal verbs

- Can / Could
- May / Might
- Must
- Have to / Have got to
- Be to
- Need
- Ought to
- Should
- Would
- Shall, Will
- Used to

4.Noun

5.Article

- Definite article
- Indefinite article
- Zero article

6.Adjective and adverb

7.Pronoun

- Personal
- Possessive
- Reflexive
- Demonstrative

Sentence structure

8.Sentences

- Simple and complex sentences
- Questions

9.Clauses

- Adjective clauses
- Adverb clauses
- Noun clauses
- Defining/Non-defining relative clauses

10.Reported speech

11.Conditionals

- First conditional
- Second conditional
- Third conditional
- Zero conditional

ENGLISH VOCABULARY

1. Academic vocabulary

2. Topic related vocabulary

- Medical education
- Chemistry
- Biology
- Microbiology
- Human physiology
- Nutrition
- Genetics
- Human body
- Human body systems
  - Musculoskeletal system
  - Cardiovascular system
  - Respiratory system
  - Sensory organs
  - Digestive system
  - Nervous system
  - Endocrine system

LIST OF TOPICS RELATED TO BIOLOGY

1. The main characteristics and functions of DNA
2. The main characteristics and functions of RNA. Types of RNA

3. The structure of a nucleus of an eukaryotic cell, the function of each part mentioned
4. Structure and functions of non-membrane bounded cell organelles.
5. Structure and functions of membrane bounded cell organelles
6. Structures that form the endomembrane system and their functions
7. The structures of an eukaryotic cell cytoplasm
8. The fluid-mosaic model of a cytoplasmic membrane
9. A duplicated eukaryotic chromosome structure. Distinction between the diploid number and haploid number of chromosomes
10. Chromatin structure and functions. DNA packaging in eukaryotes
11. Events that occur during the stages of mitosis. Biological significance of mitosis.
12. The stages of meiosis I (in detail). Define the following words: bivalent and crossing-over
13. The stages of meiosis II (in detail). Biological significance of meiosis
14. Heredity and variability. Mutations. Classification of mutations.
15. State Mendel`s law of dominance
16. State Mendel`s law of segregation
17. State Mendel`s law of independent assortment
18. Determination of sex in humans. Define the words: autosome and sex chromosome

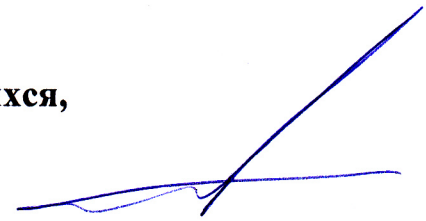
LIST OF TOPICS RELATED TO CHEMISTRY

General and Inorganic Chemistry

1. Goals and objectives of chemistry. Atom. Molecule. Ion.
2. Chemical element. Simple substances and complex compounds. The phenomenon of allotropes.
3. Relative atomic and relative molecular masses. Mol. Molar mass.
4. The law of mass conservation. Its use in chemical calculations and practice.
5. Avogadro's law and its consequences. The concept of normal conditions with respect to gases.
6. The nature and types of chemical bonds. Covalent bond (polar and nonpolar). The exchange and donor-acceptor mechanisms of covalent bond formation.
7. Ionic bond. Metallic bond. Hydrogen bond. Substances with bonds of different types.
8. Valency. Oxidation degree. Elements with constant and variable valence.
9. The structure of an atom. The concept of electron cloud. Atomic orbital. The energy level and sublevel.
10. The electronic structure of an atom. The system of quantum numbers as a characteristic of electronic states in the atom. Pauli's principle. Aufbau principle (Klechkovsky's rules).
11. Periodic law and periodic system of chemical elements by D.I. Mendeleev. Relation of periodic law with the electronic structure of atom.

12. The structure of Periodic System by D.I. Mendeleev. Change of chemical elements atoms properties (radius, ionization energy, electron affinity, electronegativity) and their compounds in groups and periods of the Periodic System.
13. Classification of chemical reactions on the base of different principles. Chemical reaction of additions, decomposition substitution exchange. Redox reactions.
14. Reversible chemical reaction. Chemical equilibrium and conditions that affect the shift of chemical equilibrium. Le Chatelier's principle.
15. Rate of chemical reactions. Dependency of chemical reaction rate of temperature.
16. Rate of chemical reactions. The phenomenon of catalysis and catalysts.
17. Rate of chemical reactions. The dependency of reaction rate of reactants nature and concentration.
18. The concept of solutions. Ways of expression for composition of solutions.
19. The concept of electrolytes and non-electrolytes. Electrolytic dissociation by Arrhenius. Strong and weak electrolytes.
20. Oxides. Classification of oxides.
21. Bases. Alkalis and insoluble bases.
22. Acids. Classification of acids.
23. Chemical properties of acids, bases and salts.
24. Hydrogen, its physical and chemical properties. Laboratory synthesis of hydrogen and its uses.
25. Halogens, their comparative characteristics based on their position in the Periodic System and the structure of atoms. Chemical properties of the example of chlorine.
26. General characteristics of VIA group elements. Oxygen, its physical and chemical properties. Allotropy oxygen. Getting oxygen.
27. General characteristics of VIA group elements. Sulfur, its physical and chemical properties.
28. General characteristics of VA group elements. Nitrogen, its physical and chemical properties.
29. General characteristics of VA group elements. Phosphorus. Phosphoric acid and its salts.
30. General characteristics of elements IVA group elements. Carbon, its physical and chemical properties. Allotropic forms of carbon. Carbon (II) and (IV) oxides and their chemical properties.
31. General characteristics of IVA group elements. Silicon oxide (IV) and silicic acid. Silicates.
32. Metals and their position in the Periodic System. Features of the electronic structure of atoms. Typical physical and chemical properties of metals. Uses of metals.
33. Natural compounds of metals. Main methods of metals preparation. The role of metals in plant and animal organisms.

Fundamentals of Organic Chemistry

1. The theory of chemical structure of organic substances by A.M. Butlerov.
2. Principles of organic substances nomenclature. Classification of organic substances.
3. Hybridization of carbon atoms in organic substances.
4. Alkanes. Homologous series of saturated hydrocarbons. Nomenclature of alkanes.
5. Alkanes. Physical and chemical properties of alkanes (on the example of methane and ethane oxidation and substitution reactions).
6. Alkenes. The structure of molecules. Chemical properties of alkenes. Addition reactions: hydration, hydrogenation, hygrohalogenation halogenation.
7. Alkenes. The polymerization reaction of ethylene hydrocarbons. Polyethylene. Polymers uses.
8. Alkynes and their nomenclature. The structure of molecules. Chemical properties of alkynes. Addition reactions: hydration, hydrogenation, hygrohalogenation halogenation.

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