

Russian Governmental Scholarship Program
Topics for the interviews by key subjects

Biology

1. Properties of life
2. The geological time scale (GTS)
3. Evolutionary taxonomy in biology
4. Evolution of cells structure from protozoans to mammals
5. Procreation from protozoans to mammals
6. Evolution of respiratory systems from protozoans to mammals
7. Evolution of nervous systems from protozoans to *Homo Sapiens Sapiens*
8. Mendel's principles of heredity
9. Human evolution
10. Systems of human body

Chemistry

1. Structure of the periodic table
2. Atomic structure (corpuscular theory)
3. Physical units and measurements in chemistry
4. Types of chemical bonds
5. Types of chemical reactions by recombination, electricity, thermodynamics
6. Redox and acid-base reactions, balancing the equations
7. The Structural Theory, classes of organic compounds and their correlation
8. Classification of inorganic compounds
9. Electrolysis
10. Biomolecules: proteins, carbohydrates, nucleic acids, lipids

Physics

1. Statics in classical mechanics – phenomena, laws and units
2. Dynamics in classical mechanics – phenomena, laws and units
3. Kinematics in classical mechanics – phenomena, laws and units
4. Thermodynamics – phenomena, laws and units
5. Properties of gases – phenomena, laws and units
6. Properties of liquids – phenomena, laws and units
7. Electrostatics – phenomena, laws and units
8. Electrodynamics – phenomena, laws and units
9. Oscillation and waves (mechanics, electrodynamics, acoustics, light)
10. Geometrical and physical optics – phenomena, laws and units
11. Nuclear physics – phenomena, laws and units

Mathematics

1. Triangles and their geometry: properties, theorems, calculations
2. Area and volume in geometry: formulas for the main geometric objects
3. Progressions: types, properties, calculations
4. Properties of functions: monotonicity, symmetry, continuity
5. Roots of the n^{th} degree: concept and properties
6. Logarithms, logarithmic functions and their graphs
7. Polynomial functions, their roots and graphs
8. Trigonometry – phenomena, functions, identities, formulas and graphs
9. Differential calculus – phenomena, laws and functions
10. Integral calculus – phenomena, laws and functions

Government

1. Theories of state formation
2. Basic forms of government by power source, structure, ideology and distribution of sovereignty
3. Typology of political regimes with examples
4. Political parties and party systems with examples
5. Typology of law: legal systems, areas of law, legal institutions
6. International law: history, structure, principles, institutions
7. Social conflict: role, subjects, objects, management, conflict behavior
8. Social stratification and social mobility
9. Globalization and regional integration: pro and contra, current developments
10. Nigeria in the world: political science perspective