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Тоҷикистон**

**Факултети муносибатҳои байналмилалӣ**

**Кафедраи «Т. Ҷисмони ва илмҳои табиатшиносии»**

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курси 2

*TEST ON CONCEPTS OF MODERN NATURAL SCIENCES*

@1.The science was generated?

- \$A) In the Ancient Greece;
- \$B) In Europe in XVI-XVII;
- \$C) In Europe in XIII-XV;
- \$D) in Ancient Rome;
- \$E) In Russia in 1725;

@2.Scientific research levels are allocated?

- \$A) Contemplate and empirical;
- \$B) Contemplate and conceptual;
- \$C) Empirical and theoretical;
- \$D) theoretical and conceptual;
- \$E) Empirical theory;

@3.The differentiation of natural sciences has started to occur at stage?

- \$A) Analytical natural sciences;
- \$B) Physic-philosophy;
- \$C) Synthetic natural sciences;
- \$D) integrated natural sciences;
- \$E) About nature and science;

@4.Cumulative object of natural sciences is?

- \$A) The nature;
- \$B) Galaxy;
- \$C) the Earth;
- \$D) geographical cover of the Earth;
- \$E) the Universe;

@5.The theory is?

- \$A) The statement opening the general communications of the studied phenomena;
- \$B) The true, proved, confirmed knowledge of essence of the phenomena;
- \$C) Presumable knowledge which has likelihood character;
- \$D) Theoretical and conceptual;
- \$E) All variants are wrong;

@6. A method of empirical level of knowledge is?

- \$A) Analogy;
- \$B) Supervision;
- \$C) Modeling;
- \$D) synthesis;
- \$E) Thinking;

@7. Classification is?

- \$A) Establishment of similarity and distinction of signs of investigated objects;
- \$B) Association of various signs of investigated objects;
- \$C) Reference of objects to a certain class of the phenomena;
- \$D) The true, proved, confirmed knowledge of essence of the phenomena;
- \$E) The unscientific form of knowledge of the Universe;

@8. Quarks are?

- \$A) Elementary particles with a fractional charge;
- \$B) Space bodies with superfluous x-ray radiation;
- \$C) Chemical catalysts of new generation;
- \$D) integrated natural sciences;
- \$E) I don't know;

@9. The physical vacuum is?

- \$A) the special kind of a matter providing physical interactions of material objects;
- \$B) The principal view of a matter possessing in weight;
- \$C) The lowest power condition of a quantum field;
- \$D) The strong compound consists with electrons;
- \$E) The special kind of a matter;

@10. What elementary particles do not concern to hadron?

- \$A) Protons;
- \$B) Neutrons;
- \$C) electrons;
- \$D) nucleons;
- \$E) kernel;

@11. Not resorting to calculations, specify, entropy increases in what processes?

- \$A)  $H_2O(r) - H_2O$ ;
- \$B)  $HCl - - HCl$ ;
- \$C)  $HCl - H_2$ ;
- \$D)  $H_2O - H_2O$ ;
- \$E)  $HCl - - H$ ;

@12. The special theory of relativity (HUNDRED) solves problems?

- \$A) Adaptations of the existential metrics to the modern physics;
- \$B) Absoluteness of space and time;
- \$C) the classical mechanics;
- \$D) Not inertial systems of readout;
- \$E) The classical of the modern physics;

@13. Corpuscular -wave dualism is?

- \$A) Quantum -relativistic representations about a physical reality on a basis HUNDRED and FROM Einstein;
- \$B) Postulate, that wave properties are simultaneously inherent in all;
- \$C) micro particles both corpuscular;
- \$D) the theory of quantization of physical sizes;
- \$E) Quantum mechanics;

@14.The substance reducing speed of course of chemical process is called?

- \$A) Catalyzer;
- \$B) Ingibitor;
- \$C) Atom;
- \$D) Core;
- \$E) Mantle;

@15.From the modern point of view the systematizing factor of Periodic system of D.I.Mendeleev is?

- \$A) Weight of a kernel of atom;
- \$B) Charge of a kernel of atom;
- \$C) Atom charge;
- \$D) Weight atom;
- \$E) Weight of Periodic system;

@16.As the concept about an origin live of lifeless is called?

- \$A) Abiogenes;
- \$B) filogenes;
- \$C) Otogenes;
- \$D) All variants is wrong;
- \$E) Lifeless;

@17.Selection of chemical elements in the Universe is shown in such a manner that the substance most part in it is made by only two elements, namely?

- \$A) Carbon and hydrogen;
- \$B) Silicon and carbon;
- \$C) Isotope;
- \$D) hydrogen and Helium;
- \$E) hydrogen and Silicon;

@18.Nano technology is?

- \$A) Technology from modern world;
- \$B) Physics section;
- \$C) Astrobiology section;
- \$D) interdisciplinary direction in natural sciences;
- \$E) Chemistry section;

@19.Nano technology operates with the objects which linear sizes make?

- \$A) From  $10^9$  to  $10^{-9}$  m;
- \$B) From 1 to  $10^9$  m;
- \$C) From  $10^{-7}$  to  $10^{-9}$  m;
- \$D) From  $10^{-7}$  to 1;
- \$E) From 2 to  $10^9$  m;

@20.Cosmology is?

- \$A) The unscientific form of knowledge of the Universe;
- \$B) Astronautics section;
- \$C) Section Astronomy;
- \$D) The second name Cosmology;
- \$E) The unscientific learn cosmology;

@21.The minor planets entering into Solar system are called?

- \$A) Companions;
- \$B) Meteors;
- \$C) Asteroids;
- \$D) comets;
- \$E) Stones;

@22.The largest unit of measure of space distances?

- \$A) Light year;
- \$B) Astronomical unit;
- \$C) Parsec;
- \$D) kilometer;
- \$E) Meters;

@23.The Universe is homogeneous, as it?

- \$A) The point has identical properties in all;
- \$B) Extends;
- \$C) Has identical properties in all directions;
- \$D) is in a hot condition;
- \$E) All variants are wrong;

@24.The age of the Universe estimated?

- \$A) From the moment of the Big Bang;
- \$B) From time of formation of solar system;
- \$C) from time of formation of galaxies;
- \$D) From the beginning of a phase of inflation;
- \$E) 15-30 billion years;

@25.Our Galaxy has the form?

- \$A) The elliptic;
- \$B) the spiral;
- \$C) The spherical;
- \$D) wrong;
- \$E) The round;

@26.The solar system in our Galaxy settles down?

- \$A) in a plane, the perpendicular galactic;
- \$B) At a galactic plane;
- \$C) On Galaxy periphery;
- \$D) Position is not found out yet;
- \$E) The elliptic;

@27.Quasars are?

- \$A) Small galaxies - companions of our Galaxy;
- \$B) Double stars;
- \$C) Powerful sources of a radio emission in the Universe;

- \$D) New stars;
- \$E) Small stars;

@28. New stars are formed?

- \$A) From fogs and mist;
- \$B) From double stars;
- \$C) From red dwarfs;
- \$D) From variable stars;
- \$E) from interstellar substance;

@29. The external part of the Sun - atmosphere - consists?

- \$A) From photosphere, zones and areas of radiant carrying over of energy;
- \$B) From photosphere, chromosphere and a crown;
- \$C) From a kernel, area of radiant carrying over of energy and a crown;
- \$D) from a kernel, convict zones and crowns;
- \$E) From a kernel;

@30. Limestone under the influence of the raised pressure and heats turns?

- \$A) In quartzite;
- \$B) In marble;
- \$C) In a granite;
- \$D) In iron;
- \$E) In stone;

@31. An oil field and gas are connected with tectonic structures?

- \$A) Ocean floor;
- \$B) Plains;
- \$C) Mountains;
- \$D) Rivers;
- \$E) Land;

@32. The World Ocean includes?

- \$A) All oceans and underground waters being under them;
- \$B) All seas and oceans;
- \$C) All oceans and ices of Antarctica;
- \$D) All oceans;
- \$E) All seas;

@33. Waters of the World Ocean the average maintenance of salts and a water lump make?

- \$A) 35 %;
- \$B) 1 %;
- \$C) 3,5 %;
- \$D) 10 %;
- \$E) 21 %;

@34. To continental water pools carry?

- \$A) Lakes, the rivers, bogs, water basins;
- \$B) Lakes, the seas, the rivers, bogs;
- \$C) The rivers, gulfs of the seas, the seas, bogs;
- \$D) the rivers, lakes, water basins, gulfs of the seas;
- \$E) the rivers, gulfs of the seas;

@35. On depth of 1 km underground waters can be?

- \$A) Only in a firm condition;
- \$B) only in a liquid condition;
- \$C) Only in a vaporous condition;
- \$D) All variant are wrong;
- \$E) Only in a firm;

@36. With height increase over a precipice of the Earth air temperature increases?

- \$A) In troposphere;
- \$B) In a stratosphere;
- \$C) In mesosphere;
- \$D) In thermosphere;
- \$E) In atmosphere;

@37. At height 10km over a surface of the Earth air consists mainly?

- \$A) from nitrogen and ozone;
- \$B) From hydrogen and helium;
- \$C) From nitrogen and oxygen;
- \$D) from carbonic gas and nitrogen;
- \$E) From ozone;

@38. The condition of the bottom layer of atmosphere in the given place is called at present?

- \$A) albedo;
- \$B) Weather;
- \$C) Climate;
- \$D) Wind;
- \$E) Cloud;

@39. The synergetic science transformation is about?

- \$A) Chaos in space (order);
- \$B) Simple systems in the difficult;
- \$C) Difficult systems in the simple;
- \$D) an order in chaos;
- \$E) I don't know;

@40. C. Darwin has shown that as struggle for existence is understood?

- \$A) Competition between representatives of different kinds of animals;
- \$B) Establishment between live organisms of forms of co-operation and mutual aid;
- \$C) Fierce struggle of individuals of one kind;
- \$D) struggle against ungrateful conditions of an environment;
- \$E) Opposition of wildlife of an industrial civilization;

@41. It is necessary to consider as elementary factors and the evolution phenomena?

- \$A) Change gene population structure as the elementary evolutionary phenomenon;
- \$B) the individual as elementary evolutionary structure;
- \$C) Population elementary material;
- \$D) mutations as elementary evolutionary factors;
- \$E) Natural selection as elementary evolutionary counteraction;

@42. I. Prigogin has opened self-organizing of microsystems' in a kind?

- \$A) non-stationary, nonlinear systems;
- \$B) Opened systems;

- \$C) structures;
- \$D) Concentration auto waves;
- \$E) Concentration all systems;

@43.Co-evolution is?

- \$A) the present stages of evolution live on the Earth;
- \$B) Destruction biosenoses;
- \$C) The mutual adaptation of kinds;
- \$D) the most severe struggle for existence;
- \$E) Evolution of human;

@44.C.Darwin has given a scientific explanation of evolution of wildlife in work?

- \$A) «A role of work in the course of transformation of a monkey into the person»;
- \$B) «An origin of species by natural selection»;
- \$C) «An origin of the person»;
- \$D) «Expression of emotions at the person and animals»;
- \$E) An origin of the earth;

@45.The elementary structure of evolution, on modern representations, is?

- \$A) Population;
- \$B) Organism;
- \$C) Cage;
- \$D) biosenoses;
- \$E) science;

@46.In the modern theory of evolution «life waves» is?

- \$A) Periodic change of a climate of a planet;
- \$B) Waves of the World ocean;
- \$C) Quantitative fluctuations in number of population;
- \$D) increase in number of closely related crossings;
- \$E) Concentration auto waves;

@47.Unit of a structure and ability to live of a live organism is?

- \$A) Atom;
- \$B) Molecule;
- \$C) Fabric;
- \$D) a cage;
- \$E) kernel;

@48.The gene represents?

- \$A) Site information RNA;
- \$B) Site of a molecule of DNA;
- \$C) pentides chain;
- \$D) a cage;
- \$E) Molecules of atom;

@49.By inheritance transferred?

- \$A) By molecule of DNA;
- \$B) Phenotype;
- \$C) Gene mutations;
- \$D) From RNA;
- \$E) Modification changes;

@50. Gene's mutation is?

- \$A) Organism in which there was a mutation;
- \$B) The factor increasing number of mutations;
- \$C) Hereditary transfer of a sign;
- \$D) transferred of human;
- \$E) The mutual adaptation of kinds;

@51. The genotype is?

- \$A) Set of genes of all live organisms;
- \$B) Set of a hereditary material of population;
- \$C) Set of genes of the individual;
- \$D) Hereditary;
- \$E) An origin of species by natural selection;

@52. The author of the chromosomal theory of a heredity?

- \$A) T. Morgan;
- \$B) G. Mendel;
- \$C) N. Vavilov;
- \$D) V. Vernadsky;
- \$E) E. Henry;

@53. The noosphere is?

- \$A) Part biosphere;
- \$B) Mineral cover of the Earth;
- \$C) Reason sphere;
- \$D) A field of activity;
- \$E) About human;

@54. Bio gene substance?

- \$A) It is created in the course of ability to live of organisms;
- \$B) All answers are correct;
- \$C) It is formed without participation of live organisms;
- \$D) grows out of interaction live and lifeless;
- \$E) Site information RNA;

@55. Transformation of biosphere into a noosphere occurs under influence?

- \$A) Climatic factors;
- \$B) Geological factors;
- \$C) Reasonable activity;
- \$D) biological evolution;
- \$E) Evolution of Earth;

@56. The state of health depends of many degrees?

- \$A) From an individual way of life;
- \$B) from public health services condition;
- \$C) From a heredity;
- \$D) from environment factors;
- \$E) All variants are wrong;

@57. High-grade health is characterized?

- \$A) Balance between functions of an organism and environment factors;
- \$B) Steady emotional condition;

- \$C) Absence of illnesses;
- \$D) high physical indicators;
- \$E) An individual way of life;

@58. The healthy way of life is?

- \$A) The behavior directed on achievement of success and well-being;
- \$B) Absence of bad habits;
- \$C) Absence of illnesses;
- \$D) the behavior directed on preservation and strengthening of health;
- \$E) Steady emotional condition;

@59. From how many systems of bodies the person - as a uniform organism consists?

- \$A) 2;
- \$B) 4;
- \$C) 6;
- \$D) 8;
- \$E) 10;

@60. What does the forensic medicine represent?

- \$A) Integration of achievement of various sciences into legal proceedings, administrative and criminal law;
- \$B) systems of knowledge of laws of occurrence, ways of revealing, methods of research and principles of estimations of medical factors;
- \$C) Achievement integration only biology in chorysprudence;
- \$D) Achievement integration only chemistry in chorysprudence;
- \$E) Achievement integration only cybernetics in chorysprudence;

@61. Who is the founder of anthropology?

- \$A) Vernadsky;
- \$B) T. Morgan;
- \$C) Bogdanov;
- \$D) Pies;
- \$E) Burinsky;

@62. What basic signs of the person on which exist define corpses, criminals, proofs, their participation and guilt, and use them in legal proceedings as material evidences?

- \$A) Appearance, blood, races, hair, urine, a teeth and their structures, prints of fingers, a saliva, age;
- \$B) Races;
- \$C) Blood, age;
- \$D) a nose;
- \$E) Appearance of the person;

@63. How the science about definition of group of blood is called?

- \$A) Dactyloscopy;
- \$B) teethcology;
- \$C) Judicial stomatology;
- \$D) deformism;
- \$E) Anthropology and anthropometry;

@64. How the science about definition of a teeth and their structures is called?

- \$A) teethology;

- \$B) Dactyloscopy;
- \$C) Judicial stomatology;
- \$D) deformism;
- \$E) Anthropology and anthronometry;

@65.How the science about definition prints of fingers is called?

- \$A) Dactyloscopy;
- \$B) teethcology;
- \$C) Judicial stomatology;
- \$D) deformism;
- \$E) Anthropology and anthropometry;

@66.How the science about floor definition is called?

- \$A) deformism;
- \$B) teethcology;
- \$C) Judicial stomatology;
- \$D) Dactyloscopy;
- \$E) Anthropology and anthronometry;

@67.How the science about appearance of a corpse is called?

- \$A) Anthropology and anthronometry;
- \$B) teethcology;
- \$C) Judicial stomatology;
- \$D) Deformism;
- \$E) Dactyloscopy;

@68.What methods define age?

- \$A) Radiological, biochemical, osteometric, anatom-morerologic, microscopic;
- \$B) The analysis;
- \$C) Induction, deduction;
- \$D) physical and chemical;
- \$E) Medical and biologic;

@69.What function is carried out by uric system in the person?

- \$A) Promotes allocation of excessive liquids from an organism;
- \$B) Digestive which is stomach function;
- \$C) Provides to the blood reference in an organism;
- \$D) provides to reproduction of a kind (childbirth);
- \$E) Provides with an exchange of gases between an organism and environment;

@70.What function carries out digestive system?

- \$A) Promotes allocation of excessive liquids from an organism;
- \$B) Digestive which is stomach function;
- \$C) Provides to the blood reference in an organism;
- \$D) provides to reproduction of a kind (childbirth);
- \$E) Provides with an exchange of gases between an organism and environment;

@71.What function is carried out by cardiovascular system?

- \$A) Provides with an exchange of gases between an organism and environment;
- \$B) Promotes allocation of excessive liquids from an organism;
- \$C) Provides to the blood reference in an organism;
- \$D) provides to reproduction of a kind (childbirth);

\$E) Digestive which is stomach function;

@72. What function is carried out by respiratory system?

\$A) Provides to the blood reference in an organism;

\$B) Promotes allocation of excessive liquids from an organism;

\$C) Digestive which is stomach function;

\$D) provides to reproduction of a kind (childbirth);

\$E) Provides with an exchange of gases between an organism and environment;

@73. What the system include a nerve?

\$A) Eye, ears, a nose, language, a skin;

\$B) Bone system, muscles;

\$C) Nerves;

\$D) breath bodies;

\$E) I do not know;

@74. Science is?

\$A) The higher and basic form of scientific knowledge is scientific;

\$B) Way of knowledge and world development  
Outlook;

\$C) The higher value of a human civilization;

\$D) Part of spiritual culture of a society;

\$E) I do not know;

@75. Process of mental derivation from all properties, communications and relations of studied object being insignificant for the given scientific theory?

\$A) Abstraction;

\$B) Modeling;

\$C) Idealization;

\$D) Analogy;

\$E) Realization;

@76. Corpuscular representations about a matter characters for?

\$A) Mechanical picture of the world;

\$B) Electromagnetic picture of the world;

\$C) Modern picture of the world;

\$D) Religious picture of the world;

\$E) I do not know;

@77. In 1913 N. Bor has developed the model?

\$A) Atom;

\$B) The Universe;

\$C) Cages;

\$D) Electrons;

\$E) Molecules;

@78. A.M. Butlerov, A.I. Oparin, and P. Rudenko was promoted by strengthening's of interrelation of chemistry with?

\$A) Physics;

\$B) Geology;

\$C) cosmology;

- \$D) Biology;
- \$E) Mathematic;

@79. Essence, features, the mechanism of development and science application are object of research?

- \$A) Science;
- \$B) Religions;
- \$C) Physicists;
- \$D) Sociology;
- \$E) Geology;

@80. The form of thinking which generalizes and allocates subjects to their general signs?

- \$A) Concept;
- \$B) Judgment;
- \$C) Feeling;
- \$D) Perception;
- \$E) Representation;

@81. N.N. Semenov, J. Vant-Goff, Le-Shatele is the largest figures in development?

- \$A) Structural chemistry;
- \$B) Analytical chemistry;
- \$C) Process chemistry;
- \$D) Evolutionary chemistry;
- \$E) I do not know;

@82. In classical mechanics introduction in scientific turn of concepts of absolute space and time belongs?

- \$A) To I. Newton;
- \$B) D. Bruno;
- \$C) To R. Descartes;
- \$D) M. Faradeju;
- \$E) N.N. Semenov;

@83. The internal, ordered set of the interconnected elements, the certain integrity proving as something uniform in relation to other objects it?

- \$A) System;
- \$B) Structure;
- \$C) Model;
- \$D) Configuration;
- \$E) Analytical chemistry;

@84. In the XIX-th century idea about replacement of corpuscular representations about a matter on continual, continuous has stated?

- \$A) M. Faradej;
- \$B) R. Descartes;
- \$C) I. Newton;
- \$D) D. Bruno;
- \$E) N.N. Semenov;

@85. Into an electromagnetic picture of the world idea of a relativity of space and time has entered?

- \$A) A. Einstein;

- \$B) M.Faradej;
- \$C) R.Descartes;
- \$D) I.Newton;
- \$E) N.Bor;

@86.The chromosomal theory of heredity of G.Morgan became the important stage in development?

- \$A) Genetics;
- \$B) Cybernetics;
- \$C) Mathematicians;
- \$D) Synergetic;
- \$E) Sociology;

@87.Into physics concept of probability of 19 century has entered?

- \$A) I.Newton;
- \$B) M.Faradej;
- \$C) Macswell;
- \$D) A.Einstein;
- \$E) R.Descartes;

@88.Reception of substances with the set properties and revealing of ways of management by properties of substance is a problem?

- \$A) Chemistry;
- \$B) Geology;
- \$C) Biology;
- \$D) cosmology;
- \$E) Genetics;

@89.A heredity and variability of organisms, their ability to transfer the signs to other generation and to get new qualities studies?

- \$A) Anatomy;
- \$B) Genetics;
- \$C) Cybernetics;
- \$D) Computer science;
- \$E) Mathematic;

@90.Scientific revolution in XVI-XVII centuries begins with works?

- \$A) N.Kopernik;
- \$B) G.Galilei;
- \$C) N.Kuzanski;
- \$D) D.Bruno;
- \$E) R.Descartes;

@91.The model of the extending Universe has been developed by?

- \$A) A.Fridman;
- \$B) A.Einstein;
- \$C) N.Bor;
- \$D) I.Kepler;
- \$E) D.Bruno;

@92.The space objects possessing an intensive radio emission and extremely small conditional sizes it?

- \$A) Quasars;
- \$B) Pulsars;

- \$C) Comets;
- \$D) Asteroids;
- \$E) Stones;

@93. How many planets of Solar system were known by the moment of creation by Kopernik of heliocentric system of the Universe?

- \$A) Seven;
- \$B) Six;
- \$C) Three;
- \$D) Five;
- \$E) Four;

@94. What included into system of classical mechanics Newton?

- \$A) The decision of a problem on movement of bodies with the speeds close to a velocity of light;
- \$B) Statement of a question on Universe expansion;
- \$C) Consideration of the nature fundamental interactions in the nature;
- \$D) The formulation of three laws;
- \$E) All variants are wrong;

@95. How the representation extended now about the Universe origin according to which the Universe has arisen in a special point of space - time with infinite curvature is called?

- \$A) Concepts of Big Bang;
- \$B) Model of the closed Universe;
- \$C) the theory of biochemical evolution;
- \$D) The theory of space Drift;
- \$E) All variants are wrong;

@96. When Mendeleev's periodic law has been opened?

- \$A) 1869;
- \$B) 1905;
- \$C) 1929;
- \$D) 1799;
- \$E) 1866;

@97. What is gene?

- \$A) The least structural unit of a live organism;
- \$B) Heredity unit;
- \$C) Chemical element;
- \$D) About human;
- \$E) I don't know;

@98. The modern science is directed on the decision ...?

- \$A) Problems of complex character mentioning all mankind;
- \$B) Private, narrow problems;
- \$C) Problems only from humanitarian area;
- \$D) Problems from natural-science area;
- \$E) All variants are wrong;

@99. If the star is more sub central galaxies how it calls?

- \$A) the star old, the old population concentrates a patch of light to the centre;
- \$B) The star new also is badly shone;

- \$C) Star the white dwarf;
- \$D) Star a quasar;
- \$E) I don't know;

@100. How the phenomenon predicted by Friedmann called, which was discovered by Hubble in 1929?

- \$A) Solar system;
- \$B) Black hole;
- \$C) Radio-activity;
- \$D) Universe expansion;
- \$E) Brown movement;

@101. Define the distance from Earth to the Sun?

- \$A) 150 Million km;
- \$B) 146 000000 km;
- \$C) 155 Million km;
- \$D) 220 Million km;
- \$E) 225 Million km;

@102. How many stars are in our Galaxy?

- \$A) 200 million;
- \$B) 180 million;
- \$C) 150 Million;
- \$D) 155 Million;
- \$E) 156 Million;

@103. The method of scientific knowledge, which consists in studying the phenomenon in specially created and controlled conditions, allowing restoring the course of the phenomenon when the conditions are repeated is?

- \$A) observation;
- \$B) Description;
- \$C) Analysis;
- \$D) Measurement;
- \$E) Experiment;

@104. The sphere of human activity, the function of which is the development and theoretical systematization of objective knowledge of reality, is one of the forms of social consciousness?

- \$A) picture of the world;
- \$B) Science;
- \$C) Art;
- \$D) Religion;
- \$E) Education;

@105. The appearance of elements of dialectics in the teachings of the ancient Greeks about the world is connected with the name?

- \$A) Anaximenes;
- \$B) Pythagoras;
- \$C) Heraclitus;
- \$D) Plato;
- \$E) Parmenides;

@106. A holistic system of ideas about the general properties and laws of nature arising as a result of a generalization of basic natural science concepts and principles is?

- \$A) world system;
- \$B) Science;
- \$C) Art;
- \$D) religion;
- \$E) Picture of the world;

@107. Which of these scientists was a supporter of the heliocentric system of the world?

- \$A) Plato;
- \$B) Aristotle;
- \$C) Ptolemy;
- \$D) Copernicus;
- \$E) Parmenides;

@ 108. What picture of the world considers gravity to be the only type of interaction between bodies that is transmitted instantly and without any material intermediary?

- \$A) Aristotelian;
- \$B) Mechanical;
- \$C) Electromagnetic;
- \$D) quantum field;
- \$E) None;

@109. A science that is not directly related to reality, but which provides natural science with methods of researching reality, is?

- \$A) chemistry;
- \$B) Biology;
- \$C) Physics;
- \$D) mathematics;
- \$E) Philosophy;

@110. In what picture of the world did the statement for the first time appear that matter can exist as a field?

- \$A) in Aristotle;
- \$B) In mechanical;
- \$C) In electromagnetic;
- \$D) in the quantum field;
- \$E) In no one;

@111. The assertion that events simultaneous in one frame of reference are non-simultaneous in another frame of reference moving relative to the first is consistent with representations of time?

- \$A) Aristotle's picture of the world;
- \$B) A mechanical picture of the world;
- \$C) Special theory of relativity;
- \$D) electromagnetic picture of the world;
- \$E) Mechanical and electromagnetic pictures of the world;

@112. Which of the following provisions corresponds to the relational concept of space and time?

- \$A) Space and time are inextricably linked and exist independently of human consciousness. They are different sides of a single entity - four-dimensional space-time;
- \$B) Space - an empty "container of bodies";
- \$C) Space - absolutely motionless, continuous, homogeneous and isotropic, permeable - not affecting matter and not subject to its influence;

- \$D) Time is something absolute and not dependent on anything, pure duration, evenly flowing from the past to the future;  
\$E) Space and time are special principles that exist independently of each other;

@113. A theory in which the dimensions of bodies and the time intervals between events lose their absolute character and acquire the meaning of relative values, depending on the relative motion of bodies and tools with which to measure them, has been developed?

- \$A) Newton;  
\$B) Galileo;  
\$C) Maxwell;  
\$D) Lorentz;  
\$E) Einstein;

@114. In order of increasing strength, the fundamental interactions are arranged as follows?

- \$A) electromagnetic, gravitational, weak, strong;  
\$B) Gravitational, weak, electromagnetic, strong;  
\$C) Weak, gravitational, electromagnetic, strong;  
\$D) gravitational, electromagnetic, weak, strong;  
\$E) Weak, electromagnetic, gravitational, strong;

@115. Which of the fundamental interactions is characteristic of any bodies?

- \$A) gravitational;  
\$B) Strong;  
\$C) Weak;  
\$D) electromagnetic;  
\$E) None;

@116. Which of the following particles are carriers of electromagnetic interaction?

- \$A) gravitons;  
\$B) Gluons;  
\$C) Photons;  
\$D) bosons;  
\$E) I don't know;

@117. The concept that reflects the existing nature in nature, proportionality and proportionality between the elements of any system, the equilibrium state of the system is?

- \$A) entropy;  
\$B) Symmetry;  
\$C) Asymmetry;  
\$D) harmony;  
\$E) Stationary;

@118. In accordance with modern cosmological concepts the Universe?

- \$A) expands from a specific center;  
\$B) Shrinks toward the fixed center;  
\$C) is expanding, but there is no expansion center;  
\$D) is compressed, but there is no compression center;  
\$E) unchanged in size;

@119. In order of distance from the Sun, the planets of the Solar system are arranged as follows?

- \$A) Mercury, Venus, Earth, Mars, Saturn, Jupiter, Uranus, Neptune, Pluto;  
\$B) Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto;

- \$C) Jupiter, Venus, Earth, Mars, Mercury, Saturn, Uranus, Neptune, Pluto;
- \$D) Venus, Mercury, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto;
- \$E) Mercury, Venus, Earth, Mars, Jupiter, Saturn, Neptune, Uranus, Pluto;

@120. Natural science studies?

- \$A) physical, chemical, etc. phenomena;
- \$B) the world, as it is, regardless of the person;
- \$C) the universe;
- \$D) all that exists;
- \$E) biological organisms;

@121. The sun is like a star?

- \$A) white dwarf;
- \$B) yellow dwarf;
- \$C) red giant;
- \$D) pulsar;
- \$E) quasar;

@122. The galaxy to which the solar system belongs is called; \$A) Andromeda Nebula?

- \$B) Large Magellanic Cloud;
- \$C) Small Magellanic Cloud;
- \$D) The Milky Way;
- \$E) Whirlpool;

@123. The historical continuous, gradual change and development of the forms of living matter is this?

- \$A) mutation;
- \$B) variability;
- \$C) evolution;
- \$D) struggle for existence;
- \$E) transformation;

@124. The process of survival and reproduction of organisms most adapted to environmental conditions, and the death of unsuitable organisms is called?

- \$A) mutation;
- \$B) by natural selection;
- \$C) heredity;
- \$D) a certain variability;
- \$E) evolution;

@125. The hypothesis of academician A. I. Oparin about the origin of life on Earth was the basis for the formation of the concept?

- \$A) the divine creation of the living (creationism);
- \$B) multiple spontaneous generation of life from inanimate matter;
- \$C) a stationary state, according to which life has always existed;
- \$D) the unearthy origin of life (panspermia);
- \$E) the origin of life in the distant past as a result of processes subject to physical and chemical laws;

@126. The smallest elementary living system, which is the fundamental principle of vital activity and reproduction of living organisms, is?

- \$A) bacteria;

- \$B) cell;
- \$C) fabric;
- \$D) population;
- \$E) view;

@127. The totality of living organisms on Earth and the entire volumetric space populated by them, under their influence and occupied by the products of their activities, is?

- \$A) population;
- \$B) view;
- \$C) biocenosis;
- \$D) biosphere;
- \$E) biogeocenosis;

@128. Which of the following life forms is not cellular?

- \$A) bacteria;
- \$B) viruses;
- \$C) mushrooms;
- \$D) plants;
- \$E) animals;

@129. The scope of the mind, the area of active manifestation of scientific thought as the main factor in the impact of man on the world around it?

- \$A) hydrosphere;
- \$B) noosphere;
- \$C) stratosphere;
- \$D) biosphere;
- \$E) lithosphere;

@130. The reproduction of similar and hereditary traits is carried out with the help of information, the material carrier of which are molecules?

- \$A) ATP;
- \$B) hydrocarbons;
- \$C) protein;
- \$D) DNA;
- \$E) nitrogen;

@131. An elementary, functionally indivisible unit of hereditary information about one of the body's proteins is called?

- \$A) genome;
- \$B) genome;
- \$C) reproductive cell;
- \$D) ribosome;
- \$E) an egg;

@132.

The science of managing, communicating and processing information, the object of study of which are systems consisting of many interconnected objects capable of perceiving, memorizing, processing information and exchanging it is?

- \$A) synergetics;
- \$B) genetics;
- \$C) cybernetics;
- \$D) computer science;

\$E) automation;

@133.The theory of biochemical evolution created?

\$A) A.I. Oparin;

\$B) J. B. Lamarck;

\$C) C. Darwin;

\$D) L. Pasteur;

\$E) V.I. Vernadsky;

@134.The evolutionary series of Homo sapiens?

\$A) Sinanthropus, Neanderthal, Cro-Magnon;

\$B) "skilled man," "upright man," Cro-Magnon;

\$C) Australopithecus, Neanderthal, Cro-Magnon;

\$D) "skilled man", "upright man", Neanderthal man, Cro-Magnon;

\$E) Cro-Magnon, Neanderthal, Sinanthropus;

@135.What is the name of the science of determining teeth and their structure?

\$A) fingerprinting;

\$B) genatiscology;

\$C) forensic dentistry;

\$D) sexual deformism;

\$E) anthropology and anthronometry;

@136.What is the name of the science of gender?

\$A) fingerprinting;

\$B) genatiscology;

\$C) forensic dentistry;

\$D) gender deformism;

\$E) anthropology and anthronometry;

@137.What are the methods for determining age?

\$A) induction, deduction;

\$B) Analysis;

\$C) X-ray, biochemical, pure chemical, osteometric, anatomical and morrological, microscopic;

\$D) physical and chemical;

\$E) Biomedical;

@138.What function does the digestive system perform?

\$A) provides gas exchange between the body and the environment;

\$B) promotes the release of excess fluids from the body;

\$C) provides blood circulation in the body;

\$D) provides for the reproduction of the species (childbirth);

\$E) digestive, which is a function of the stomach;

@139.What function does the reproductive system perform?

\$A) digestive, which is a function of the stomach;

\$B) promotes the release of excess fluids from the body;

\$C) provides blood circulation in the body;

\$D) provides for the reproduction of the species (childbirth);

\$E) provides gas exchange between the body and the environment;

@140.What does the sensory system include?

- \$A) eye, ears, nose, tongue, skin;
- \$B) bone system, muscles;
- \$C) Nerves;
- \$D) Respiratory organs;
- \$E) Arms and legs;

@141. Cosmology is the doctrine of?

- \$A) cognition;
- \$B) Spaces;
- \$C) Description of nature;
- \$D) Matter;
- \$E) Level of religiosity of people;

@142. Synergetic models are models?

- \$A) nonlinear, no equilibrium systems exposed to factors;
- \$B) Linear and no equilibrium systems;
- \$C) Nonlinear and equilibrium systems;
- \$D) Linear and equilibrium systems not affected by factors;
- \$E) Chaotic systems;

@143. The key points of synergetics are?

- \$A) stability, versatility;
- \$B) variability, heredity, selection;
- \$C) nonlinearity, openness, self-organization;
- \$D) inertness, discreteness;
- \$E) linearity and nonlinearity;

@144. Who put forward the concept of dissipative structure?

- \$A) I.R. Prigogine;
- \$B) G. Haken;
- \$C) V.I. Vernadsky;
- \$D) K.E. Tsiolkovsky;
- \$E) M. Planck;

@145. Divergence is?

- \$A) the divergence of the energy fluxes of the system during its structural rearrangements;
- \$B) Dispersion;
- \$C) Rapprochement;
- \$D) Acquisition during the evolution of similar traits;
- \$E) Rapprochement and acquisition during the evolution of similar features;

@146. The humanities are?

- \$A) a rational, universal way of understanding the world;
- \$B) An intuitive, associative-shaped way of understanding the world;
- \$C) the spiritual and moral way of understanding the world;
- \$D) An experimental way of comprehension of the world, provable only by facts;
- \$E) teaching based only on intuition;

@147. What ensures the integrity of atoms, molecules, macro bodies?

- \$A) gravitational forces;
- \$B) Nuclear forces;
- \$C) Natural forces;

- \$D) Electromagnetic forces;
- \$E) Weak strengths;

@148.The most common properties of space include?

- \$A) structural;
- \$B) Three-dimensionality;
- \$C) uniformity;
- \$D) All of the above;
- \$E) Extent;

@149.Statistical determinism is?

- \$A) the mental selection of an object;
- \$B) The divergence of the energy fluxes of the system;
- \$C) The doctrine of the structure of logical organization;
- \$D) The result of the interaction of a large number of elements individually determined in accordance with other types of determination;
- \$E) The basic law of thermodynamics;

@150.What the third law of Newton says?

- \$A) the acceleration of the body is proportional simply to the force acting on this body, and the proportionality coefficient does not depend on the nature of the force;
- \$B) two bodies act on each other by forces that are numerically equal directed in opposite directions along a straight line connecting the points of application of these forces;
- \$C) If there is no force, the acceleration is zero, and the movement occurs in a straight line and at a constant speed;
- \$D) There is no right answer;
- \$E) Closed systems are equal in rights;

@151.What is not a structural component of a primary substance?

- \$A) intergalactic space;
- \$B) Microcosm;
- \$C) Mega world;
- \$D) Macrocosm;
- \$E) Electron and positron;

@152.

They experience a strong interaction?

- \$A) electrons;
- \$B) Protons;
- \$C) Neutrino;
- \$D) photons;
- \$E) molecules;

@153.Which of the following are the main forms of existence of matter?

- \$A) only space;
- \$B) space and time;
- \$C) space, time and field;
- \$D) space, time, field and substance;
- \$E) field and substance;

@154.What can cause chaos?

- \$A) noise;

- \$B) the presence of a large number of degrees of freedom;
- \$C) fairly complex organization of the system;
- \$D) all of the above;
- \$E) external interference;

@155. The phenotype does not apply?

- \$A) behavioral characteristics;
- \$B) mental warehouse;
- \$C) Physiology;
- \$D) Chromosome set;
- \$E) Environment;

@156. The human circulatory system consists of?

- \$A) The heart and the pulmonary circulation (from the left ventricle to the right atrium);
- \$B) The heart and pulmonary circulation (from the right ventricle to the left atrium);
- \$C) The heart and the closed system of blood vessels, including arteries, veins and capillaries;
- \$D) From large and small circle of blood circulation;
- \$E) From the heart and capillaries;

@157. The human genome is?

- \$A) nucleotide sequence of sections of individual genes;
- \$B) Totality of all genes and intergenic DNA;
- \$C) Polymer chain of specific DNA;
- \$D) DNA;
- \$E) chromosome region;

@158. The central body of immunity is?

- \$A) the pituitary gland (the leading gland of internal secretion);
- \$B) Thymus (thymus gland);
- \$C) Pineal gland (brain structure);
- \$D) Thyroid gland;
- \$E) Pancreas;

@159. The modern monkey closest to a person by the degree of kinship is?

- \$A) orangutan;
- \$B) Gorilla;
- \$C) Chimpanzees;
- \$D) Baboon;
- \$E) Gibbon;

@ 160. What type of evolution does the concept of the macrocosm have?

- \$A) space;
- \$B) chemical;
- \$C) biological;
- \$D) physical;
- \$E) geological;

@161. Which type of interaction of organisms is not co-evolution?

- \$A) symbiosis;
- \$B) parasitism;
- \$C) biogeocenosis;
- \$D) society;

\$E) mutualism;

@162. What relates to the evolutionary triad?

\$A) variability, heredity, selection;

\$B) constancy, universality;

\$C) nonlinearity;

\$D) instability, openness;

\$E) natural selection;

@163. The unit of the structure of biological species is called?

\$A) atom;

\$B) Fabric;

\$C) Cell;

\$D) Molecule;

\$E) Mitochondria;

@164. The unit of hereditary information of a living organism is?

\$A) Allele;

\$B) Gene;

\$C) Chromosome;

\$D) Ribosome;

\$E) Chromosome;

@165. The course of a chemical reaction is most significantly affected by?

\$A) temperature;

\$B) pressure;

\$C) lighting;

\$D) catalyst;

\$E) ion charges;

@166. The chemical properties of the elements are determined?

\$A) the structure of atomic nuclei;

\$B) the speed of the molecules;

\$C) condition for conducting chemical reactions;

\$D) electronic structure of atoms;

\$E) the number of neutrons in the nucleus;

@167. What term appeared as a result of applying the principles of synergetics in the study of objects of social nature?

\$A) biosynergetics;

\$B) social synergetics;

\$C) chemosynergetics;

\$D) physicosynergetics;

\$E) geosynergetics;

@168. Why can we consider space and time objective?

\$A) they exist outside and independently of human consciousness;

\$B) they are valued by a person;

\$C) they have no definite meaning;

\$D) due to the three-dimensionality of space;

\$E) due to the uniformity of space and unidirectional time;

@169.What does the idea of integrity mean?

- \$A) The purpose of life is self-affirmation;
- \$B) You need to live in harmony with nature, without disturbing its balance;
- \$C) The world should be divided into separate parts;
- \$D) The active introduction of science in nature;
- \$E) The consequence of the consequence follows;

@170.The space in the understanding of modern physics is?

- \$A) The property of human consciousness to order things, to determine the place of one near the other;
- \$B) The eternal category of consciousness, innate as a form of sensory contemplation;
- \$C) The attribute of matter, defined by the connections and interconnections of the motion of bodies;
- \$D) The void in which various bodies are located;
- \$E) Extent of matter;

@171.The virus in biological terms is?

- \$A) nucleoprotein;
- \$B) Molecule - the causative agent of infection;
- \$C) Substance possessing the properties of a creature;
- \$D) Causative agent of infectious diseases reproducing inside living cells, non-cellular organization;
- \$E) separate family;

@172.Low-organized living organisms that do not have a true cell nucleus, DNA is located in the cell freely, without being separated from the cytoplasm, the nuclear membrane is called?

- \$A) lichens;
- \$B) mosses;
- \$C) prokaryotes;
- \$D) eukaryotes;
- \$E) algae;

@173.Determine the correct sequence of human ancestors?

- \$A) upright - intelligent - intelligent;
- \$B) reasonable - skillful - upright;
- \$C) skillful - upright - intelligent;
- \$D) skillful - reasonable - upright;
- \$E) reasonable - smart - upright;

@174.Science has formed?

- \$A) in ancient Greece;
- \$B) in Europe in the XV1-XV11 centuries;
- \$C) in Europe in the XIV-XV centuries;
- \$D) in ancient Rome;
- \$E) in Egypt;

@175.Science differs from ordinary knowledge?

- \$A) the relevance of the object of knowledge;
- \$B) the reliability of the knowledge gained;
- \$C) the significance of the results of cognition;
- \$D) language used;
- \$E) research methods;

@176.A certain way of understanding an object, process or phenomenon is?

- \$A) concept;
- \$B) law;
- \$C) hypothesis;
- \$D) theory;
- \$E) probability;

@177.In a scientific study, the levels are distinguished?

- \$A) contemplative and empirical;
- \$B) contemplative and conceptual;
- \$C) empirical and observational;
- \$D) theoretical and conceptual;
- \$E) empirical and theoretical;

@178.The differentiation of the natural sciences began to occur at the stage of?

- \$A) natural philosophy;
- \$B) analytical science;
- \$C) synthetic science;
- \$D) integral natural sciences;
- \$E) empirical science;

@179.The total object of natural science is?

- \$A) Earth;
- \$B) Galaxy;
- \$C) Nature;
- \$D) geographic shell of the Earth;
- \$E) Biosphere;

@180.Theory is?

- \$A) hypothetical knowledge that is probabilistic in nature;
- \$B) True, proven, confirmed knowledge of the essence of phenomena;
- \$C) Statement revealing the general relations of the studied phenomena;
- \$D) accurate knowledge not confirmed experimentally;
- \$E) Observation results;

@181.The method of empirical knowledge is?

- \$A) analogy;
- \$B) Observation;
- \$C) Modeling;
- \$D) synthesis;
- \$E) Practice;

@182.Classification is?

- \$A) establishment of similarities and differences in the characteristics of the studied objects;
- \$B) Combination of various features of the studied objects;
- \$C) Assignment of objects to a certain class of phenomena;
- \$D) there is no right answer;
- \$E) matching feature signs;

@183.Quarks are?

- \$A) space bodies with excess x-ray radiation;

- \$B) elementary particles with fractional charge;
- \$C) new generation chemical catalysts;
- \$D) the totality of several atoms in a molecule;
- \$E) nucleons in the nuclei of atoms;

@184. Physical vacuum is?

- \$A) a special type of matter that provides physical interactions of material objects;
- \$B) The main type of matter with mass;
- \$C) The lowest energy state of the quantum field;
- \$D) a special type of gas in technical apparatuses;
- \$E) Airless place;

@185. A singularity is?

- \$A) "black hole";
- \$B) superdense matter;
- \$C) initial state of the Universe, characterized by infinite mass density and infinite curvature;
- \$D) Big bang;
- \$E) Star cluster;

@186. What is wave-particle duality?

- \$A) decomposability of light;
- \$B) wave properties of elementary particles;
- \$C) The mismatch of the properties of the same particle obtained at different accelerators;
- \$D) different types of elementary particles;
- \$E) Duality in the behavior of microcosm objects;

@187. What does nature formulate so that the probability of processes becomes zero?

- \$A) Opportunities;
- \$B) Order;
- \$C) Schemes;
- \$D) Conditions;
- \$E) Mess;

@188. What is absolutely in the theory of relativity?

- \$A) space;
- \$B) Laws;
- \$C) Speed of light;
- \$D) space-time continuum;
- \$E) Time;

@189. Strong interaction provides?

- \$A) bond of nucleons in the nucleus;
- \$B) Chemical transformations of substances;
- \$C) Decay of elementary particles;
- \$D) bond of atoms in molecules;
- \$E) Intermolecular chemical bonds;

@190. What elementary particles do not belong to hadrons?

- \$A) protons;
- \$B) Neutrons;
- \$C) Electrons;
- \$D) nucleons;

\$E) Protons and neutrons;

@191. A positively charged intranuclear particle is?

\$A) neutron;

\$B) Positron;

\$C) Electron;

\$D) hyperons';

\$E) Proton;

@192. Without resorting to calculations, indicate in which processes the entropy increases?

\$A)  $\text{H}_2\text{O}(\text{g}) \rightarrow \text{H}_2\text{O}(\text{g})$ ;

\$B)  $\text{HCl}(\text{g}) \rightarrow \text{HCl}(\text{g})$ ;

\$C)  $\text{H}_2\text{O}(\text{x}) \rightarrow \text{H}_2\text{O}(\text{x})$ ;

\$D) All options are wrong;

\$E) All options are correct;

@193. Special Theory of Relativity (SRT) solves the problems?

\$A) classical mechanics;

\$B) Absoluteness of space and time;

\$C) Adaptation of the space-time metric to modern physics;

\$D) non-inertial reference systems;

\$E) Inertial reference systems;

@194. Entropy is?

\$A) the internal energy of the system;

\$B) The amount of heat that is used to perform mechanical work;

\$C) thermodynamic state function, which characterizes part of the internal energy of the system, capable of being transformed into mechanical work, a measure of chaos, which in a state of thermal equilibrium reaches its maximum value;

\$D) measure of the decency of the system;

\$E) Equilibrium state of the system;

@195. Corpuscular-wave dualism is?

\$A) the postulate that all microparticles are inherent in both particle and wave properties;

\$B) Theory of quantization of physical quantities;

\$C) quantum-relativistic ideas about physical reality based on SRT and GR Einstein;

\$D) a theory explaining the wave properties of microparticles;

\$E) Description of wave functions in physics;

@196. A substance that reduces the rate of a chemical process is called?

\$A) Chemical reaction;

\$B) An inhibitor;

\$C) Catalyst;

\$D) reagent;

\$E) An acceptor;

@197. What is called synergetics?

\$A) Science of the behavior of complex systems;

\$B) Interaction of complex systems;

\$C) Science of the evolution of wildlife;

\$D) Science of interactions in nature;

\$E) Method for the study of living systems;

@198.From a modern point of view, the systematizing factor of the Periodic Table of D. I. Mendeleev is?

- \$A) Mass of isotopes of elements;
- \$B) Atomic nucleus mass;
- \$C) Atomic charge;
- \$D) atomic mass;
- \$E) Atomic nucleus charge;

@199.What is the name of the concept of the origin of living from nonliving?

- \$A) Abiogenists;
- \$B) Phylogenies;
- \$C) Ontogenesis;
- \$D) Biogenesis;
- \$E) Phenotype;

@200.The number of organogenesis 'that is, element that in total is the basis of living systems and whose total weight fraction, for example, in the human body is 97%?

- \$A) 7;
- \$B) 6;
- \$C) 3;
- \$D) 10;
- \$E) 2;

@201.The primary atmosphere of the ancient Earth was?

- \$A) from hydrogen and helium;
- \$B) From ammonia, carbon dioxide, oxygen;
- \$C) From nitrogen, oxygen, carbon dioxide;
- \$D) from ammonia, methane, carbon dioxide;
- \$E) From hydrogen, oxygen, carbon;

@202.The selection of chemical elements in the Universe is manifested in such a way that most of the substance in it consists of only two elements, namely?

- \$A) hydrogen and helium;
- \$B) Carbon and hydrogen;
- \$C) Oxygen and helium;
- \$D) silicon and carbon;
- \$E) Iron and carbon;

@203.Determine the sequence in which chemical knowledge has historically developed taking into account 4 conceptual stages: A - evolutionary chemistry, B - structural chemistry, C - doctrine of chemical processes, E - doctrine of the composition of matter?

- \$A) A-B-C-E;
- \$B) C-E-B-A;
- \$C) E-B-C-A;
- \$D) A-E-B-C;
- \$E) A-B-E-S;

@204.Nanotechnology is?

- \$A) interdisciplinary direction in the natural sciences;
- \$B) Section of physics;
- \$C) Section of astrobiology;

- \$D) chemistry section;
- \$E) Section of astronomy;

@205.Nanotechnologies operate with objects whose linear dimensions are?

- \$A) from 1 to  $10^9$  m;
- \$B) From  $10^9$  to  $10^{-9}$  m;
- \$C) From  $10^{-7}$  to  $10^{-9}$  m;
- \$D) from 1 to  $10^{-9}$  m;
- \$E) From  $10^7$  to  $10^9$  m;

@206.Cosmology is?

- \$A) An unscientific form of knowledge of the Universe;
- \$B) Cosmonautics section;
- \$C) Section of nanotechnology;
- \$D) The second name of cosmogony;
- \$E) Section of astronomy;

@207.Mega world is?

- \$A) Star systems, galaxies, planets;
- \$B) The world of elementary particles;
- \$C) The world of animal organisms;
- \$D) Discoveries in the field of physics;
- \$E) The world in the hydrosphere;

@208.Why is the sun shining?

- \$A) because thermonuclear fusion reactions occur on the Sun;
- \$B) Because chemical reactions occur on the Sun;
- \$C) Because the sun is warm;
- \$D) because there are fires on the Sun;
- \$E) Therefore, one hundred the sun is red;

@209."Red shift" is?

- \$A) lowering the frequency of electromagnetic radiation coming from the stars;
- \$B) Radiation of red giants;
- \$C) The change in radiation coming from the nuclei of galaxies;
- \$D) Special radiation of the most distant stars;
- \$E) Thermal heating of planets;

@210.Small planets included in the solar system are called?

- \$A) Meteors;
- \$B) Satellites;
- \$C) Asteroids;
- \$D) Comets;
- \$E) Dwarfs;