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Science Bridging Course
Unit B5 – Self-test

In this chapter you will find out:

- Test for self-study

Test for self-study: Biology

I. In animal organisms predominate:

1) carbohydrates;
2) fat;
3) protein;
4) nucleic acids;
5) vitamins.

II. All organisms have a lot of common features. Which of them is the most important:

1) movement;
2) reproduction;
3) responding to the environment;
4) growth;
5) ability to use environmental energy sources for oneself.

III. The most important moment in the chemical evolution of life was:

1) protein formation;
2) lipid formation;
3) formation of nucleic acids;
4) formation of carbohydrates;
5) there is no correct answer.

IV. Which of these structure elements of a living organism is the most complex:

1) cells;
2) macromolecules;
3) membranes and organoids;
4) tissues;
5) macromolecules.

V. In ribosomes takes place:

1) vitamin synthesis;
2) carbohydrate synthesis;
3) protein biosynthesis;
4) mineral acid synthesis;
5) lipid biosynthesis.

VI. Which statement about the functions of the cell nucleus is incorrect:

1) stores information;
2) transmits information to the cytoplasm by transcription;
3) transmits information to daughter cells;
4) is the main information centre;
5) performs photosynthesis.

VII. The nuclear shell divides the cell into:

1) cytoplasm and endoplasmic reticulum;
2) small nucleus and cytoplasm;
3) nucleus and cytoplasm;
4) nucleus and pigmented inserts;
5) nucleus and secretory inclusions

VIII. The cell's nutrition process, when it "swallows" rigid particles, is called:

1) pinocytosis;
2) polythene;
3) phagocytosis;
4) reduplication;
5) cyclosis.

IX. Which of these components is not a cytoplasmic organoid:

1) mitochondria;
2) lysosomes;
3) chromosomes;
4) dictyosomes;
5) ribosomes.

X. Osmosis – is:

1) own material synthesis from inorganic starting materials or from organic compounds;
2) assimilation and excretion of substances;
3) diffusion of water through semipermeable membrane (e.g., plasmalemma);
4) the process of degradation of substances in the cell;
5) oxidative substance degradation in the cytoplasmic parent material.

X. Examination of bacteria under microscope is called:

1) chemotherapy;
2) ultrasound;
3) disinsection;
4) bacterioscopy;
5) epilation.

XI. Antibacterial drugs of biological origin are called:

1) antibodies;
2) antigens;
3) antibiotics;
4) depressants;
5) enzymes.

XII. Bacilli are:

1) non cellular structure bacteria;
2) bacterial viruses;
3) fungal viruses;
4) spore forming bacteria;
5) virulent viruses.

XIII. The main way of bacterial growth is:

1) budding;
2) decomposition;
3) sexual reproduction;
4) conjugation;
5) there is no correct answer.

XIV. The process of bacteria entering a living organism is:

1) incubation;

2) intoxication;
3) pasteurization;
4) sterilization;
5) infection.

XV. Sarcosporidia cause:

1) toxoplasmosis;
2) Sarcocystosis;
3) balantidiosis;
4) leishmaniasis;
5) pneumocystosis.

XVI. Pulsating vacuoles are:

1) digestive organoids;
2) movement organoids;
3) disposal organoids;
4) reproductive organoids;
5) encystation organoids.

XVII. Which statement about the light effect on bacteria is false:

1) light is not necessary for bacteria, except for photosynthetic bacteria;
2) blue, purple and ultraviolet rays are particularly harmful to bacteria;
3) some bacteria are able to emit light on their own;
4) bacterium phosphoreum species emit light;
5) light is very important for the vital activity of all bacteria.

XVIII. Which statement about photosynthesis is not correct:

1) it is the most important carbon assimilation process;
2) it is the synthesis of organic compounds from CO_2 and H_2O;
3) photosynthesis is performed by algae, lichens and higher plants;
4) the leaf is an organ of photosynthesis;
5) photosynthesis is one of the processes taking place in nature, which requires carbon dioxide.

XIX. Approximately the same, regularly repeating response of a neural mechanism to a specific stimulus is:

1) habituation;
2) tone;
3) reflex;
4) inactivation;
5) depolarization.

XX. Substances, acting on receptors and used to exchange information between individuals of the same species, are:

1) enzymes;
2) hormones;
3) stimulators;
4) inhibitors;
5) pheromones.

XXI. Nervous tissue:

1) forms the upper layer of skin;

2) covers the small intestines;
3) properly transmits excitation;
4) consists of long and pointed cells;
5) consists of myofibrils.

XXII. Which hormone is secreted by the pancreas:

1) renin;
2) thyroxine;
3) adrenaline;
4) insulin;
5) testosterone.

XXIII. The central nervous system consists of:

1) the brain;
2) spinal cord;
3) brain and spinal cord;
4) nerves and nerve nodes;
5) nerve nodes only.

XXIV. Which part of the nervous system is made up of grey and white substance:

1) peripheral nervous system;
2) sympathetic nervous system;
3) central nervous system;
4) parasympathetic nervous system;
5) vegetative nervous system.

XXVI. The longest nerve in the human body is:

1) facial nerve;
2) tongue nerve;
3) nomadic nerve;
4) trigeminal nerve;
5) optic nerve.

XXVII. The human nervous system is:

1) net type;
2) node type;
3) tubular type;
4) net-node type;
5) node-tube type.

XXVIII. What neurons is the optic nerve made of:

1) sensory;
2) motor;
3) sensory and motor;
4) interneurons;
5) cerebral cortex.

XXIX. Which of these proteins is soluble in plasma:

1) fibrinogen;
2) fibrin;
3) haemoglobin;
4) thrombin;
5) prothrombin.

XXX. Which of these substances causes blood coagulation:

1) haemoglobin;
2) glucose;
3) fibrin;
4) fibrinogen;
5) table salt.

XXXI. What forms in the body cells during the oxidation and decomposition of the organic matter

1) oxygen;
2) carbon dioxide and other vital activity products of the cell;
3) lymph, water and various salts;
4) tissue fluid, water and oxygen;
5) lymph only.

XXXII Proteins are decomposed into:

1) amino acids;
2) glycerol;
3) glycerol and fatty acids;
4) glucose;
5) mineral substances.

XXXIII. Which vitamin deficiency causes night blindness and impairs the growth

1) vitamin A;
2) vitamin B;
3) vitamin C;
4) vitamin D;
5) vitamin E.

XXXIV. Which of these vitamins is not soluble in water:

1) vitamin A;
2) vitamin B;
3) vitamin C;
4) vitamin B_6;
5) vitamin PP.

XXXV. Which of these hormones is produced by testicles:

1) progesterone;
2) testosterone;
3) estrone;
4) estradiol;
5) insulin.

XXXVI.Which statement about irritability is wrong:

1) almost all plant cells do not respond to irritation;
2) in all easily agitated cells, there is a considerable electrical potential between the inner side of plasmalemma and the cell's surface;
3) excitation can be transmitted from one neuron to another through synapses;
4) if there wasn't inhibition, any excitation could uncontrollably spread through the nervous system;
5) in human nervous system, excitation spreads at a rate of 2-5 cm/s.

XXXVII. Which term describes the movement of the cytoplasm of the cell:

1) cyclose;
2) endocytosis;
3) exocytosis;
4) phagocytosis;
5) pinocytosis.

XXXVIII. Which of these chemical elements is not a macroelement of a living organism:

1) C (carbon);
2) S (sulphur);
3) O (oxygen);
4) Zn (zinc);
5) H (hydrogen).

XXXIX.In the decomposition of organic matter, the energy is:

1) released;
2) is not released;
3) neither released, nor received;
4) energy transformation does not take place;
5) there is no correct answer.

XL. In the plant structure dominate:

1) proteins;
2) vitamins;
3) lipids;
4) carbohydrates;
5) nucleic acids.

XL. Which statement is not correct:

1) all living organisms are made up of cells;
2) the cell has all the characteristics of a living system;
3) all cells are formed according to uniform structural principles;
4) the shape of all cells is the same;
5) viruses are non-cellular derivatives.

XLII. Which of the following cell components is inorganic:

1) mineral salts;
2) nucleic acids;
3) proteins;
4) lipids;
5) carbohydrates.

XLIII. Streptococci are:

1) globular bacteria, whose adherent cells form a long row;
2) globular, single bacteria;
3) globular bacteria, the cells of which are arranged in pairs;
4) curved rod-shaped bacteria;
5) long, highly tortuous bacteria.

XLIV. Pale spirochete causes:

1) dysentery;
2) plague;
3) jaundice;
4) gonorrhea;
5) syphilis.

XLV. Trypanosoma causes:
1) dysentery;
2) jaundice;
3) malaria;
4) smallpox;
5) insomnia.

XLVI. Blood and lymph:
1) epithelial tissues;
2) muscle tissues;
3) joint tissues;
4) nervous tissues;
5) there is no correct answer.

XLVII. What are hormones:
1) mixtures of fats and carbohydrates;
2) solutions of natrium and calcium salts;
3) biologically active substances;
4) weak solutions of various acids;
5) strong solutions of various acids.

XLVIII. Breaking any part of a reflex arc, a reflex:
1) disappears;
2) functions normally;
3) partially disappears;
4) temporarily disappears;
5) there is no correct answer.

XLIX. Nerve inflammation is:
1) pleurisy;
2) sinusitis;
3) meningitis;
4) neuritis;
5) catarrh

L. Bacteria, which cannot live without air (oxygen), are:
1) photogenic;
2) aerobic;
3) anaerobic;
4) obligate;
5) facultative.

Key: 1-3; 2-2; 3-3; 4-4; 5-3; 6-5; 7-3; 8-3; 9-3; 10-3; 11-4; 12-3; 13-4; 14-2; 15-5; 16-2; 17-3; 18-5; 19-5; 20-3; 21-5; 22-3; 23-4; 24-3; 25-3; 26-3; 27-3; 28-1; 29-1; 30-4; 31-2; 32-1; 33-1; 34-1; 35-2; 36-5; 37-1; 38-4; 39-1; 40-4; 41-4; 42-1; 43-1; 44-5; 45-5; 46-3; 47-3; 48-1; 49-1; 50-2.