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# ПОСІБНИК ДЛЯ САМОСТІЙНОЇ РОБОТИ НАД ПРОФЕСІЙНОЮ ЛЕКСИКОЮ ДЛЯ СТУДЕНТІВ ПРИРОДНИЧИХ СПЕЦІАЛЬНОСТЕЙ

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Посібник для самостійної роботи студентів факультетів біології та екології та клінічної лабораторної діагностики і реабілітації денної та заочної форм навчання. Посібник призначено для закріплення навичок вживання професійно спрямованої лексики. Різноманітні вправи відповідають змісту і доповнюють основний підручник. Також пропонуються завдання для перевірки рівня засвоєння матеріалу та самоконтролю.
Навчальні матеріали, які містяться у посібнику, допоможуть студентам більш ефективно організувати самостійну роботу, а також можуть бути використані під час підготовки до складання іспиту до магістратури.

## Unit 1. History of biology

### Task 1. Complete the sentence and translate it

1. There are two great ……. of biology: ……., which is the study of plants, and ……., which is the study of animals.
2. ……. studies the functional characteristics (the most important operations).
3. ……. studies the relations between organism and environment.
4. ……. studies all microorganisms, such as bacteria, yeasts, moulds, algae.
5. Due to this discovery Koch became known ……. .
6. But some bacteria can exist in both aerobic and anaerobic ……. .
7. He came to the …….. that it was caused by a microscopic agent.
8. Organisms smaller than bacteria were ……. viruses.
9. Hippocrates ……. the principles of modern medical practice based on the idea that diseases have only natural causes.
10. C. Linneaus ……. organisms according to their structural similarities.

### Task 2. Fill in the gaps in the text

The earliest studies of biology were probably (1) ……. by ancient physicians and embalmers. People of (2) ……. India, China, and the Middle East had a vast knowledge of various medicinal plants. The Babylonians and Egyptians had some (3) ……. of human anatomy. The first man (4) …… approached disease as a natural, rather than a supernatural, (5) ……. process was Hippocrates of Cos, a Greek who became known (6) ……. the Father of Medicine. The greatest student of biology in the ancient world was the Greek philosopher Aristotle. His writings (7) ……. works on birth, death, the nature of life, and all phases of animal life. He (8) ……. scholars for

nearly 2,000 years. Galen, a Greek living in Rome, studied anatomy by (9) ……. animals. His works were used in medical schools in the (10) ……. Ages.

**Task 3. Put the word in the right form**

……. (1) (tradition) ideas formulated by ancient Greeks and Romans were challenged. …….. (2) (observe) and …….. (3) (science) study was emphasized. Scholars again turned to actual observation of plants and animals as a means of gaining …….. (4) (inform). Another important step forward was the ……. (5) (develop) of the microscope in the early 17th century. By the 18th century, ……. (6) (biology) had come to the ……. (7) (conclude) that life could be explained in terms of biological processes that took place within the living organism. Orderly ……. (8) (classify) also made it possible to see more clearly the ……. (9) (relate) between ……. (10) (vary) kinds of life.

**Task 4. Choose the right variant to fill in the gap**

Space (1) ……. has intensified interest in the possibility of life existing elsewhere in the universe. Scientists (2) ……. study these possibilities, and who (3) …….. to find methods of detecting extraterrestrial life, are (4) ……. exobiologists.

Advances (5) …….. neurobiology, the study of the (6) ……. system, have increased our understanding of how the brain and nerve cells (7) ……. . Immunology, the study of the disease (8) ……. mechanisms of the body, also benefited (9) ……. the new methods and tools used in biological studies.

In basic research, the study of life processes continues, particularly in genetics and other areas of biochemistry. (10) ……. the 1950s, there has been much research involving the composition and functions of nucleic acid molecules.

| | | | | |
|---|---|---|---|---|
| 1 | a exploration | b existence | c extinction | d extension |
| 2 | a that | b whose | c who | d whom |
| 3 | a reject | b explain | c try | d perform |
| 4 | a famous | b called | c though | d told |
| 5 | a about | b from | c under | d in |
| 6 | a nervous | b digestive | c reproductive | d muscular |
| 7 | a live | b increase | c function | d decrease |
| 8 | a resistance | b response | c importance | d conclusion |
| 9 | a with | b in | c about | d from |
| 10 | a in | b on | c for | d since |

**Task 5. Match the word with its definition**

| | |
|---|---|
| 1. carbohydrate | monomer of nucleic acids made up of a 5-carbon sugar, a phosphate group, and a nitrogenous base |
| 2. protein | monomer that makes up proteins; contains carboxyl and amino functional groups |
| 3. amino Acid | macromolecule that contains carbon, hydrogen, oxygen, and nitrogen; needed by the body for growth and repair and to make up enzymes |
| 4. lipid | compound made up of carbon, hydrogen, and oxygen atoms; major source of energy for the human body |
| 5. nucleic Acid | macromolecule made mainly from carbon and hydrogen atoms; includes fats, oils, and waxes |
| 6. nucleotide | an organic compound, either RNA or DNA, whose molecules are made up of one or two chains of nucleotides and carry genetic information |

## Unit 2. Evolution. Mutation. Genetics

### Task 6. Complete the sentence and translate it

1. ……. is of two types: anagenesis and cladogenesis.
2. ……. is gradual change in a single species.
3. ……. involves the branching of the species into two or more species over generations.
4. This means that all species on the planet today had a common ……. .
5. Organisms become ……. (die out) if they do not have enough characteristics that enable them to get sufficient food and other necessities.
6. The ones that survive and reproduce pass on to the next ……. some of the characteristics that made them better adapted to their environment.
7. Natural selection causes a gradual ……. in the characteristics of the species. In some species, females prefer males with different traits.
8. To explain how plants and animals develop variations, biologists turn to genetics, the science of ……. .
9. Genetics shows that characteristics are passed from parents to offspring by means of …… —segments of large nucleic acid molecules contained in chromosomes.
10. Offspring ……. these genes from their parents during sexual reproduction

### Task 7. Fill in the gaps in the text

Evolution, as defined in biology, is a (1) ……. process by which one form of life changes, or (2) ……. , into another form. Some religious groups (3) ……. that evolution exists, but most scientists (4) ……. it as fact. The theory of evolution suggests that all living things (5) ……. from one or several kinds of (6) ……. organisms. It also (7) …….

why there are so many different kinds of organisms. The (8) ……. characteristics of nearly all living things change from (8) ……. to generation. The (9) ……. changes may become so great that the descendant doesn't look like its remote (10) ……. and may belong to a different species.

**Task 8. Put the word in the right form**

The change in the gene is called a …….. (1) (mutate). Mutations are ……. (2) (responsibility) for genetic ……. (3) (vary) in a given species. When a mutation introduces a ……. (4) (harm) characteristic, the organism ……. (5) (probable) will not survive unless the harmful effect is balanced by ……. (6) (benefit) effects. ……. (7) (help) characteristics acquired by mutation are likely to be passed on to future generations. Mutations can be produced in laboratories by the ……. (8) (act) of X-rays, other forms of ……. (9) (radiate), or chemicals. Mutations often happen in nature from random errors in chromosome replication. Radiation and ……. (10) (chemistry) present in the environment can also cause the genes to mutate.

**Task 9. Choose the right variant to fill in the gap**

Early successful cloning experiments had (1) ……. cells from a very *early stage of development*. The Roslin Institute's first cloned sheep, Megan and Morag, were (2) ……. in early 1996. They were produced from *embryonic* (3) ……. , and their birth caused great interest (4) ……. scientists.

Most scientists did not believe that it was possible to manipulate (5) ……. animal tissue to produce a complete organism. As an animal (6) ……. before birth, cells begin to specialize as blood, bone, skin, and all other kinds of cells in the body. Wilmut and his (7) ……. of scientists believed that depriving an adult cell of food would force it into (8) ……. . They could then transfer its genes into another cell and stimulate that

cell to begin dividing. They hoped that this stimulation would reactivate all the transferred genes. The team used this technique in (9) ……. Dolly. They took away the nucleus, which (10) ……. the genes, from a female sheep's egg cell.

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|---|---|---|---|---|
| 1 | a explained | b used | c made | d developed |
| 2 | a bear | b born | c birth | d stated |
| 3 | a cell | b organ | c tissue | d system |
| 4 | a among | b between | c during | d since |
| 5 | a small | b male | c adult | d child |
| 6 | a stimulate | b conclude | c deprive | d develops |
| 7 | a audience | b crew | c cast | d team |
| 8 | a respiration | b hibernation | c circulation | d variation |
| 9 | a create | b creating | c creativity | d creative |
| 10 | a consisted | b proposed | c contained | d established |

**Task 10. Match the word with its definition**

| | |
|---|---|
| 1. taxonomy | the technology of preparing recombinant DNA in vitro by cutting up DNA molecules and splicing together fragments from more than one organism |
| 2. natural selection | an organism that has characteristics resulting from chromosomal alteration |
| 3. mutation | process by which individuals that are better suited to their environment survive and reproduce most successfully; also called survival of the fittest |
| 4. extinction | a general term for the research activity that creates a copy of some biological entity |
| 5. fossil | study of the general principles of scientific classification |
| 6. evolution | the remains (or an impression) of a plant or animal that existed in a past geological age and that has been excavated from the soil |
| 7. genetic engineering | the sequence of events involved in the evolutionary development of a species or taxonomic group of organism |
| 8. cloning | a conditioning process in which the reinforcer is removed and a conditioned response becomes independent of the conditioned stimulus |

**Wordlist to Unit 1 and Unit 2**

| | |
|---|---|
| 1. tissue | 50. respiration |
| 2. cell | 51. contribution |
| 3. laws of heredity | 52. cause of disease / illness |
| 4. to discover / discovery | 53. dangerous |
| 5. to appear / to disappear | 54. to create the theory |
| 6. science / scientist / scientific | 55. to use / useful / useless |
| 7. according to | 56. substance |
| 8. different | 57. to treat disease |
| 9. necessary | 58. mammal |
| 10. important | 59. various biological species |
| 11. adult animal | 60. a means of getting information |
| 12. to do research / to investigate | 62. the meaning of the word |
| 13. blood circulation | 63. to describe / description |
| 14. “Origin of Species” | 64. to invent the microscope |
| 15. germ | 65. to carry out experiment |
| 16. ancient Greeks and Romans | 66. to observe the structure |
| 17. to influence | 67. to come to conclusion |
| 18. generation | 68. carbon dioxide |
| 19. know / knowledge | 69. complex relationship |
| 20. to emphasize | 70. to apply the method |
| 21. to evolve | 71. to adapt to environment |
| 22. practical application | 72. space exploration |
| 23. to transmit genes | 73. to develop / development |
| 24. structure of DNA | 74. nervous system |
| 25. to increase the supply of food | 75. disease resistance mechanism |

| | |
|---|---|
| 26. habits | 76. desirable traits |
| 27. possible / impossible | 77. to include |
| 28. harmful / harmless insects | 78. areas of biology |
| 29. survival of the fittest / to survive | 79. inherited characteristics |
| 30. successful experiment | 80. to explain / to give explanations |
| 31. remote ancestor | 81. to pass the trait to the offspring |
| 32. competition | 82. to alter the gene |
| 33. to become extinct (to die out) | 83. beneficial effect |
| 34. to improve | 84. X-rays |
| 35. in order to | 85. to experience / to have experience |
| 36. average population | 86. such as |
| 37. natural selection | 87. to share characteristics |
| 38. habitat | 88. for example |
| 39. male / female | 89. to escape predators |
| 40. to cause a disorder | 90. on the one (other) hand |
| 41. to create a cloned sheep | 91. to graduate from the university |
| 42. throughout the world / all over the world | 92. to receive a degree |
| 43. degree | 93. to be closely connected |
| 44. early stage of development | 94. conditioned reflex |
| 45. to change / alter the genes | 95. innate reflex |
| 46. hibernation | 96. due to |
| 47. human being | 97. to exist |
| 48. to manufacture donor organs | 98. to be divided into groups |
| 49. to believe | 99. to destroy |
| 50. to attend the university | 100. fine filter |

## Unit 3. Variety of plants

### Task 11. Complete the sentence and translate it

1. As all animals directly or indirectly ……. plants for food, scientists believe that plants were the first living things.
2. These first plants were very simple ……..
3. Some plants are very small, they can be seen only through a …….. .
4. Some plants have ……. , stems or leaves, some have seeds but no flowers.
5. ……. to their size and structure flowering plants can be classified as herbs, shrubs, trees.
6. Shrubs and trees are larger than ……. .
7. A tree is a woody plant with a main stem or trunk with ……. and leaves.
8. A botanist must know ……. (taxonomy), ……. (anatomy and morphology**),** ……. (physiology), connection with ……(plant ecology**),** biochemistry (photochemistry**)** and ……. (physiopathology**)** of plant life.
9. The study of plants is important because they are …… part of life
10. Through ……. , plants *absorb carbon dioxide*, a *greenhouse gas* that influences global climate.

### Task 12. Fill in the gaps in the text

Lichens are a group of complex, flowerless plants growing on (1) ……. and trees. There are thousands of (2) ……. of lichens which have a wide (3) ……. of colours. They are composed of (4) ……. and (5) …….. . The (6) ……. green algae produce all their food through a process called (7) ……. . On the (8) …….. hand, the (9) …… fungus, which depends on other elements to produce food, absorbs and stores water. This unit in which two dissimilar organisms live together is called (10) ……..

**Task 13. Put the word in the right form**

When I was a child, I read a …….. (1) (scientific) fiction story that made me think about trees in a new way. In the story, ……. (2) (visit) from an advanced ……. (3) (civilize) come to our planet and their spaceship lands in the middle of a forest. The people from another planet have a long talk with the trees of the forest, and then leave again, happy to think that ……. (4) (inhabit) of the Earth are ……. (5) (intelligence) and ……. (6) (peace). Trees are the ……. (7) (big) living things on our planet, and ones of the most beautiful in nature. They appear in many …….(8) (religion) and have been inspiring artists for thousands of years. The great age of the trees makes them ……. (9) (use) for all sorts of scientific research. We all know that trees are important for the environment and ……. (10) (survive) of our planet

**Task 14. Choose the right variant to fill in the gap**

(1) ……. to Linnaeus system, every plant and every animal (2) …….. given a double Latin name. The first word indicated to what general class it (3) ……. , the second word indicates a particular (4) ……. . Linnaeus announced that, everything in nature (5) ……. classified, that's why Linnaeus is considered the (6) ……. of taxonomy — the study of the classification. All the (7) ……. animal species were grouped into six classes: mammals, birds, reptiles, fishes, insects and worms. He even gave the human species an official name — (8) ……. sapiens. Linnaeus continued teaching and writing. His reputation had spread (9) ……. the world, and he corresponded with many different people. For example, Catherine II of Russia sent him seeds from her country. Linnaeus' last years were troubled by illness. He had (10) ……. from a disease called the Uppsala fever in 1764, but survived thanks to the care of Rosén.

| | | | | |
|---|---|---|---|---|
| 1 | a according | b due | c because | d also |
| 2 | a has | b were | c was | d had |
| 3 | a belonged | b found | c used | d created |
| 4 | a sparkling | b special | c species | d spices |
| 5 | a has | b should | c be | d should be |
| 6 | a findings | b foundation | c finder | d founder |
| 7 | a important | b useful | c known | d necessary |
| 8 | a homo | b nomo | c hominis | d human |
| 9 | a opposite | b in the middle | c over | d under |
| 10 | a experienced | b felt | c survived | d suffered |

**Unit 4. Variety of animals**

**Task 15. Complete the sentence and translate it**

1. In recent years, environmentalists have become increasingly concerned about the number of animals facing ……..
2. Unless we do something to save them now, we may soon lose many rare ……. forever.
3. We should stop destroying the ……. of wild animals.
4. Governments should ……. hunting endangered species completely.
5. As a ……. , many animals, such as tigers and alligators, would have a better chance of survival.
6. There are many ways in which we can save ……. species from extinction.
7. Mastodon is a large extinct animal ……. the elephant and mammoth.

8. How and why dinosaurs disappeared is a *puzzle* that *paleontologists* are trying ….. by studying *fossils* and *rock formations.*
9. Sometimes different scientists see the same material but come to different ……., so there are many different theories.
10. Some paleontologists think the extinction was caused by a …….

**Task 16. Fill in the gaps in the text**

The importance of bees' role in (1) ……. within the (2) ……. *chain* has been understood for quite some time. The problem is that over the past two (3) ……. many bee (4) …… around the world have (5) ……. very much. Bees pollinate (6) ……., flowers and plants. Einstein probably thought that man would not be (7) …….. *to grow adequate crops* to feed the world (8) …… pollination. There would also be other *disruptions* in the food chain, and plants in general would (9) ……. In many areas of the U.S. bee populations have dropped by 50 percent or more. No specific (10) …….. for this drop has been identified, though *infections, viruses, pollution and pesticides* have all been considered.

**Task 17. Put the word in the right form**.

Elephants have always been very ……. (1) (importance) to the people of India. They are trained to do work which *demands* great ……. (2) (*strong).* What many people do not know is that elephants are ……. (3) (excel) swimmers. This large animal can put its head under water and use its *trunk* as a *snorkel*. Its huge legs help it move …… (4) (gentle) in the water. Elephants can swim ……. (5) (fast) than humans.

**Task 18. Choose the right variant to fill in the gap**

For centuries, people lived with and respected the all-powerful crocodile. Those big jaws and lethal teeth (1) ……. all attackers away. People were also (2) ……. by their beauty and their intelligence. (3) ……. , it was their beautiful skin that put them under (4) ……. . When explorers realized how (5) ……. crocodile skin was, everything changed. Hunters risked their lives in (6) ……. to satisfy the world's demand for crocodile skin. The crocodiles' homes began (7) ……. as new towns and industries were developed. Luckily for the crocodiles, people (8) ……. that a world without them would not be the same, and now they are officially declared an (9) ……. *species*. In some parts of the world, there are now parks where crocodiles may live (10) ……. , with laws to protect them.

| | | | | |
|---|---|---|---|---|
| 1 | a attracted | b frightened | c rejected | d loved |
| 2 | a terrified | b disgusted | c fascinated | d upset |
| 3 | a luckily | b though | c unfortunately | d even |
| 4 | a threat | b risk | c extinction | d pressure |
| 5 | a cheap | b thin | c narrow | d valuable |
| 6 | a private | b practice | c vain | d order |
| 7 | a disappear | b to disappear | c disappears | d disappeared |
| 8 | a created | b complained | c realized | d ignored |
| 9 | a endangered | b extinct | c safe | d normal |
| 10 | a safe | b safely | c safety | d unsafe |

**Task 19. Match the word with its definition**

| | |
|---|---|
| Cell | specialized structure that performs important cellular functions within a eukaryotic cell |
| Nucleus | a small unit serving as part of or as the nucleus of a larger political movement, the basic structural and functional unit of all organisms |
| Organelle | a part of the cell containing DNA and RNA and responsible for growth and reproduction |
| Cell Membrane | an organelle in the cytoplasm of a living cell, small particle in the cell on which proteins are assembled; made of RNA and protein |
| Ribosome | powerhouse of the cell, produces energy (ATP) from oxygen and sugar(Cellular respiration) |
| Mitochondria | thin, flexible barrier around a cell, regulates what enters and leaves the cell |

**Wordlist to Unit 3 and Unit 4**

| | |
|---|---|
| 1. plant community | 50.to divide into groups |
| 2. to generate | 51.ferns |
| 3. to allow | 52.moss |
| 4. greenhouse gas | 53.annuals / biennials |
| 5. to absorb | 54.lichen |
| 6. soil erosion | 55.algae and fungi |
| 7. to prevent | 56.to store water |
| 8. complex (simple) organism | 57.dissolved materials |
| 9. stem | 58.herbaceous / woody |
| 10.root | 59.annual rings |
| 11.netted / parallel venation | 60.fascinate |
| 12.bud | 61.intelligent and peaceful |
| 13.pollination | 62.to inspire artists |
| 14.layer | 63.to share resources |
| 15.to identify plants | 64.to receive sunlight |
| 16.to be occupied with | 65.to prove |
| 17.coniferous plants / deciduous plants | 66.to become increasingly concerned<br>67.to face extinction |
| 18.mixed forests | 68.to destroy habitat |
| 19.to think in a new way | 69.to ban hunting |
| 20.inhabitants | 70.edition |
| 21.to resemble | 71.to threaten |
| 22.to weigh 8 tons | 72.to grow adequate crops |
| 23.remains of mammoth | 73.colony collapse disorder |
| 24.walls of caves | 74.cellular phone towers |

| | |
|---|---|
| 25.to have long tusks | 75.black spotted |
| 26.for unknown reasons | 76.flexible spine |
| 27.spinal cord | 77.to overtake |
| 28.twilight | 78.to roar like a lion |
| 29.to solve a puzzle | 79.to tame animals |
| 30.gradual process | 80.valuable crocodile skin |
| 31.in the wild | 81.demand for crocodile skin |
| 32.to misunderstand | 82.swamps and rivers |
| 33.to feed animals | 83.to satisfy |
| 34.slow-moving creature | 84.scary creature |
| 35.fresh-water vegetation | 85.to convince |
| 36.to use a trunk as a snorkel | 86.to share the opinion |
| 37.to demand strength | 87.diverse animal world |
| 38.to treat smb well | 88.hoofed animals |
| 39.big jaws | 89.to include |
| 40.unfortunately | 90.in recent years |
| 41.fur animals | 91.to worry about |
| 42.silver-black fox | 92.to lose rare species |
| 43.unique animal life | 93.to make wildlife parks |
| 44.rodents | 94.to save from extinction |
| 45.peninsular | 95.to ignore the law |
| 46.elk | 96.to declare |
| 47.lynx | 97.predators |
| 48.squirrel | 98.hamster |
| 49.fragile animal life | 99.to be inhabited by birds |
| 50.to protect animals | 100. squirrel |

## Unit 5. Integrity of the organism

### Task 20. Complete the sentence and translate it

1. The development of scientific bacteriology made possible advances in …….: using antiseptics and control of wound infection.
2. Medicine in the 20-th century made ……. contribution in the basic medical sciences.
3. These are discovery of blood …… and vitamins, invention of insulin and penicillin, practice of plastic surgery and transplantation.
4. The cell ……. ensures that chemicals are present in the proper region of the cell in appropriate concentration.
5. The most visible and essential organelle in a cell is the ……., containing genetic material and regulating the activities of the entire cell.
6. The area outside the molecules is called ……. .
7. Cytoplasm contains a variety of organelles that have different ……. .
8. The combination of cells and the product of their secretion form ……. .
9. A group of organs performing the same functions and having identical tissues is a …….
10. Cells are so small that they cannot be seen ……. .

### Task 21. Fill in the gaps in the text

The two main parts of blood include a (1) ….. part and a (2) ……. part. About half of whole blood is clear, yellowish-coloured (3) ……. called plasma. Most of plasma is water. It is an aqueous (4) ……. containing proteins, inorganic (5) ……. , and organic (6) ……. . Albumin is the major plasma (7) ……. that maintains the pressure of blood. Plasma proteins (8) …….. disease and help (9) …….. the blood. The disease-fighting plasma proteins are called (10) …….

**Task 22. Put the word in the right form**

Medicine is among the most ancient of human ……. (1) (occupy). It began as an art and ……. (2) (gradual) developed into a science over the centuries. There are 3 main stages in medicine ……. (3) (develop): Medicine of Ancient Civilizations, Medicine of Middle Ages and Modern Medicine. Early man was subject to ……. (4) (ill) and death. At that time medical ……. (5) (act) were mostly a part of ceremonial rituals. New civilizations, which developed from early tribes, began to study the human body, its ……. (6) (anatomy) composition. Magic still played an important part in treating illnesses but new ……. (7) (practice) methods were also developing. The Chinese were pioneers of ……. (8) (immune) and acupuncture. The ……. (9) (contribute) of the Greeks in medicine was enormous. An early ……. (10) (lead) in Greek medicine was Aesculapius.

**Task 23. Choose the right variant to fill in the gap**

Blood is (1) …… a modified type of connective tissue. The forming elements of the blood (2) ……. erythrocytes, leukocytes, and platelets. (3) ……. to its importance to life, blood is associated with a large number of (4) ……. . Mythic references to blood can sometimes (5) ……. to the life-giving nature of blood.

(6) ……. centuries, evil spirits in the body were thought to be the (7) ……. of illnesses. Blood is one of the most important tissues in the body. It (8) ……. materials such as digested food, water, oxygen to our cells. It (9) ……. wastes from the cells to the parts of the body where they are (10) ……. .

| | | | | |
|---|---|---|---|---|
| 1 | a concluded | b conduced | c contained | d considered |
| 2 | a form | b consist | c include | d exclude |
| 3 | a according | b in order | c due | d neither |

| | | | | |
|---|---|---|---|---|
| 4 | a beliefs | b strengths | c conflicts | d conclusions |
| 5 | a connecting | b connect | c connected | d be connected |
| 6 | a for | b since | c until | d unless |
| 7 | a diagnosis | b cause | c result | d recovery |
| 8 | a forms | b transports | c absorbs | d influences |
| 9 | a functions | b throws | c holds | d carries |
| 10 | a taken | b absorbed | c accumulated | d released |

**Task 24. Match the word with its definition**

| | |
|---|---|
| 1. digestion | the biological process whereby genetic factors are transmitted from one generation to the next |
| 2. reproduction | the process of an individual organism growing organically |
| 3. growth | the organic process by which food is converted into substances that can be absorbed into the body |
| 4. respiration | the process by which organisms make more of their own kind from one generation to the next |
| 5. nutrition | the metabolic processes whereby certain organisms obtain energy from organic molecules |
| 6. heredity | a human genetic disease resulting from having an extra chromosome 21, characterized by mental retardation and heart and respiratory defects |
| 7. Down syndrome | the organic process of nourishing or being nourished |

## Unit 6. Systems of organs

### Task 25. Complete the sentence and translate it

1. Bone is the type of ……. tissue that forms the body's skeleton.
2. It serves to protect the internal organs from ……. .
3. The bone ……. inside the bones is the body's major producer of both red and white blood cells.
4. The gastrointestinal tract and associated organs are collectively called ……..
5. This system is responsible for receiving food and breaking it down by using …… from the glands.
6. From the left heart the well-oxygenated blood is pumped into a large artery, ……. ,, to all the peripheral parts of the body.
7. While you are asleep it makes sure that the ……. *organs* which you can not control (the liver, kidneys, heart) continue to work.
8. The ……. controls emotions, music, dreams, imagination, movements of the left-hand side of the body.
9. The nerves of the autonomic system run to and from the internal organs regulating such processes as ……..
10. It took its name from the fact that many of the activities that it controls are autonomous, or ……. .

### Task 26. Fill in the gaps in the text

The system of blood circulation includes the heart the arteries (large (1) ……. blood vessels, which lead blood away from the (2) ……. ), the veins (thinner-walled blood (3) ……. that carry waste-filled blood from the tissues) and the (4) ……. of the human body. The heart is the central organ of the circulation. It (5) …… the rate at

which blood circulates and the direction of the blood (6) …….. . The heart consists of the right and the left (7) ……. and the right and the left (8) ……. . The right heart receives blood from the veins and (9)…… it into the lungs. In the lungs it gives off (10) ……. and takes in oxygen.

**Task 27. Put the word in the right form**

The nerves of the somatic system transmit information about external ……. (1) (stimulate) from skin, muscles and joints to the central ……. (2) (nerve) system; they make us feel pain, ……. (3) (press) and temperature ……. (4) (vary). Nerves of the somatic system also carry impulses from the ……. (5) (centre) nervous system back to the body parts where they start action. The nerves of the ……. (6) (autonomy) system run to and from the internal organs ……. (7) (regulate) such processes as respiration, heart rate, and ……. (9) (digest). It took its name from the fact that many of the ……. (10) (active) that it controls are autonomous, or self-regulating – such as digestion and circulation, which continue even when a person is asleep or unconscious.

**Task 28. Choose the right variant to fill in the gap**

The central nervous system includes all the nerves in the brain and (1) ……. cord, and it contains the (2) ……. of the body's neurons. Some of the very simplest stimulus-response reflexes are carried (3) ……. within the spinal cord. The peripheral nervous system consists of the nerves (4) ……. from the brain and spinal cord to the other parts of the body. The peripheral nervous system is (5) …….. into the somatic system and the autonomic system. The (6) ……. of the somatic system transmit information about (7) ……. stimulation from skin, muscles and joints to the central nervous system; they make us (8) ……. pain, pressure and temperature variations. Nerves of

the somatic system also (9) ……. impulses from the central nervous system back (10) ……. the body parts where they start action.

| | | | | |
|---|---|---|---|---|
| 1 | a spinal | b spine | c spines | d nervous |
| 2 | a majority | b most | c more | d a few |
| 3 | a from | b away | c out | d on |
| 4 | a leading | b lead | c is leading | d leads |
| 5 | a subdividing | b subdivision | c subdivided | d subdivide |
| 6 | a nerves | b nervous | c nerve | d be nervous |
| 7 | a external | b internal | c extended | d extinct |
| 8 | a felt | b feeling | c to feel | d feel |
| 9 | a carry | b hold | c throw | d wear |
| 10 | a into | b in | c to | d behind |

**Task 29. Match the word with its definition**

| | |
|---|---|
| 2. tissue | any of various water-soluble compounds having a sour taste and capable of turning litmus red and reacting with a base to form a salt |
| 1. pH | group of organs that work together to perform a specific function |
| 3. organ | p(otential of) H(ydrogen), a value that indicated the acidity or alkalinity of a solution on a scale of 0-14, based on the proportion of H+ ions. |
| 4. organ system | a part of an organism consisting of an aggregate of cells having a similar structure and function |
| 5. acid | group of organs that work together to perform a specific function |
| 6. base | any of various water-soluble compounds capable of turning litmus blue and reacting with an acid to form a salt and water |

**Wordlist to Unit 5 and Unit 6**

| | |
|---|---|
| 1. by naked eye | 51.brain |
| 2. to perform a function | 52.spinal cord |
| 3. cardio-vascular | 53.following |
| 4. muscle | 54.kidneys |
| 5. digestive/ to digest | 55.to consist of |
| 6. gland | 56.limbs |
| 7. lungs | 57.cartilage |
| 8. liver | 58.ligaments |
| 9. blood vessels | 59.joints |
| 10.to regulate an activity | 60.to make movements |
| 11.thick-walled blood vessels | 61.majority of neurons |
| 12.waste-filled blood | 62.stimulus-response reflexes |
| 13.direction / to direct | 63.to lead / leading / leader |
| 14. chambers of the heart | 64.to subdivide |
| 15.well-oxyginated blood | 65.to transmit information |
| 16.to dissolve | 66.internal organs |
| 17.blood pressure | 67.heart rate |
| 18.capillary network | 68.to be unconscious |
| 19.surface of the wound | 69.mental life |
| 20.nourishment | 70.main functions |
| 21.receptor cells | 71.previous day / following day |
| 22.to collect information | 72.to compare |
| 23.electricity | 73.vision |
| 24.memory | 74.left / right hemisphere |
| 25.experience | 75.opposite |

| | |
|---|---|
| 26.to make sure | 76.to be based on |
| 27.to know exactly | 77.decomposition of substances |
| 28.fears and fantasies | 78.relations |
| 29.to explore / explorer / exploration | 79.one particular organ |
| 30.to store information | 80.key figure |
| 31.to be called | 81.to happen |
| 32.to found a medical school | 82.to suffer |
| 33.a cause of an illness | 83.to be in terrible condition |
| 34.to observe the patients | 84.loss of blood / to lose blood |
| 35.the Hippocratic Oath | 85.surgeon |
| 36.to obey | 86.painful / painless |
| 37.the Roman Empire | 87.the way of doing smth |
| 38.to investigate | 88.achievements |
| 39.to examine a patient | 89.artificial |
| 40.terrible injuries | 90.to catch a disease |
| 41.defend / to protect | 91.to be shocked |
| 42.a weak form of disease | 92.dirty / clean |
| 43.to produce antibodies | 93.to take place |
| 44.smallpox | 94.chemistry |
| 45.to notice | 95.tiny |
| 46.to prove a theory | 96.completely new |
| 47.to attack | 97.development |
| 48.to receive treatment | 98.to go / get / turn / become bad |
| 49.nurse | 99.possible |
| 50.to arrive from London | 100.a wide range of diseases |

## Unit 7. Main concepts of ecology

### Task 30. Complete the sentence and translate it

1. Ecology is the study of the relationship of …….. with their physical and biological environment.
2. The *physical environment* includes ……..
3. The *biological environment* includes …….
4. Organisms can be studied at many different levels, from proteins and nucleic acid (in ……. biology), to cells (in ……. biology), to individuals (in botany and …. ), and finally at the level of populations, …….. , and ecosystems.
5. Ecosystem ecology studies the flow of ……. and ……. through the biotic and abiotic components of ecosystems.
6. Ecology plays a very important role in the modern world because it helps to save our planet from ……..
7. The biosphere contains great quantities of elements such as …… .
8. Other elements, such as ……., are also essential to life, yet are present in smaller amounts.
9. All interacting living organisms and their non-living environment in an area form an …….. .
10. …….. , or community, is a group of populations of plants, animals and microorganisms.

### Task 31. Fill in the gaps in the text

Almost all ecosystems run on energy received from the (1) ……. by primary producers via (2) ……. This energy then flows through the food (3) …….

to primary consumers (4) …… who eat and digest the plants), and to (5) …… and tertiary consumers (either carnivores or omnivores).

Matter is incorporated into living organisms by the primary producers. Photosynthetic plants fix (6) …….. from carbon dioxide and (7) …… from atmospheric nitrogen or soil nitrates to produce (8) ……. . Much of the carbon and nitrogen contained in ecosystems is created by such plants, and is then consumed by secondary and tertiary consumers. (9) …….. are usually returned to the ecosystem via (10) ……. The entire movement of chemicals in an ecosystem is termed a biogeochemical cycle, and includes the carbon and nitrogen cycle.

**Task 32. Put the word in the right form**

The outer …….. (1) (lay) of the planet Earth can be divided into several parts: the hydrosphere (or sphere of water), the lithosphere (or sphere of soils and rocks), and the atmosphere (or sphere of the air). The biosphere (or sphere of life), sometimes described as "the …… (2) (four) envelope," is all …….. (3) (live) matter on the planet. It reaches well into the other three spheres, although there are no permanent …… (4) (inhabit) of the atmosphere.

A …….. (5) (center) principle of ecology is that each living organism has a continual ……. (6) (relate) with every other element that makes up its environment. All …… (7) (interact) living organisms and their non-living environment in an area form an ecosystem. Studies of ecosystems usually focus on the …….. (8) (move) of energy and matter through the system**.** In an ecosystem, the …… (9) (connect) between species are …….. (10) (general) related to food and their role in the food chain.

**Task 33. Choose the right variant to fill in the gap**

Ecosystems of any size can (1) …….. . For example, a rock and the plant life (2) ……. on it might be considered an ecosystem. This rock might be within a plain, with many such rocks, small grass, and grazing animals - also an ecosystem. This plain might be in the tundra, (3) …… is also an ecosystem. In (4) ……, the entire terrestrial surface of the (5) …… , all the matter which composes it, the air that is directly (6) ……. it, and all the living organisms living within it can be considered as one, large ecosystem. Ecosystems can be (7) ……. into terrestrial ecosystems (including forest ecosystems, steppes, savannas, and so on), freshwater ecosystems (lakes, (8) ……. and rivers), and *marine* ecosystems, (9) ……. on the dominant biotope. The entire (10) …….. of chemicals in an ecosystem is termed a biogeochemical cycle.

| | | | | |
|---|---|---|---|---|
| 1 | a be studying | b study | c be studied | d studied |
| 2 | a be growing | b growing | c is growing | d grow |
| 3 | a which | b who | c whose | d whom |
| 4 | a fact | b result | c the whole | d example |
| 5 | a biosphere | b ocean | c earth | d country |
| 6 | a opposite | b between | c under | d above |
| 7 | a considered | b known | c counted | d divided |
| 8 | a ponds | b seas | c oceans | d straits |
| 9 | a relying | b including | c suggesting | d depending |
| 10 | a development | b movement | c discovery | d creation |

**Task 34. Match the word with its definition**

| | |
|---|---|
| 1. chemical reaction | production of living organisms from other living organisms |
| 2. biogenesis | process that requires oxygen |
| 3. enzyme | a process in which one or more substances are changed into others |
| 4. aerobic | organisms that cannot make their own food and must feed on other organisms for energy and nutrients |
| 5. anarobic | process by which plants and some other organisms use light energy to convert water and carbon dioxide into oxygen and high-energy carbohydrates such as sugars and starches |
| 6. heterotrophy | any of several complex proteins that are produced by cells and act as catalysts in specific biochemical reactions |
| 7. photosynthesis | metabolic process that does not require oxygen |
| 8. autotroph | organism that can capture energy from sunlight or chemicals and use it to produce its own food from inorganic compounds; also called a producer |

## Unit 8. Ecological problems of the planet

### Task 35. Complete the sentence and translate it

1. We have spent thousands of years fighting for our ……..
2. The rainforests are dying, rare plants and animal ……. are disappearing.
3. China is the most …….. country in the world. Its population is expected to reach over 1.5 billion by 2050.
4. ……. is another great problem. Many people go to bed hungry every night.
5. The UNO reports that in the developing countries people are starving, they cannot ……. the most basic needs in life.
6. The loss of a single species can cause the chain ……..
7. Every ……. plays an important role in the balance of nature.
8. Global ……. means much more than hotter temperatures.
9. Global warming will quickly ……. our planet's climate system, causing changes in average temperatures.
10. ……. involves processing used materials into new products in order to prevent the waste of potentially useful materials

### Task 36. Fill in the gaps in the text

Environment and (1) ……. of humans are closely connected. The more thoughtless people are to nature, the more (2) ……. they bring. As a (3) ……. they have more health problems than our ancestors did. Nowadays people (4) ……. from allergies, heart attacks, cancer. The humanity is (5) ……. about the state of environment.

Firstly, the problem of deforestation may bring the (6) ……. of oxygen as well (7) ……. the extinction of the biological species. And this is only because people need wood for the industrial (8) ……. . Secondly, our common home, the Earth, is becoming more

and more (9) ……. because people do not take the problem of recycling very seriously.

Needless to (10) ……. , everyone should be responsible for keeping the cities clean. Such simple steps as fines for throwing litter, arranging “clean-up days”, state control for the environment protection may be the solution to the problem.

**Task 37. Put the word in the right form**

Human ……. (1) (active) is changing the …… (2) (compose) of the atmosphere and the global climate. Natural greenhouse gas keeps the Earth’s surface warm, but humans add new ……. (3) (danger) chemicals to the atmosphere. Carbon dioxide has increased for the last four decades from …….. (4) (burn) fossil fuels, deforestation and using aerosol sprays. Cars and factories pour it into the atmosphere. This greenhouse gas is heating up the atmosphere and is thinning the upper level of the atmosphere, the ozone ……. (5) (lay). The buildup of these gases has caused an increase in the earth’s average surface temperature, and this ……. (6) (globe) warming will continue to rise in the coming decades if we do not reduce ……. (7) (pollute). One of the major problems is the ……. (8) (forest) of the rainforests in South America. As a result, birds and animals lose their home and die. This ……. (9) (destroy) is also bringing about changes in the climate. Consequently, biological species are threatened with ……. (10) (extinct).

**Task 38. Choose the right variant to fill in the gap**

When was the last time you walked down a litter-free street? (1) ……. millions of pounds are spent on clearing rubbish, this alone can not (2) ……. the problem. The solution lies in our hands. Dropping litter is (3) ……. the law in Great Britain. You can be fined up to 10000 pounds. Litter is not only ugly, (4) ……. dangerous. Why is there

so much litter? Most consumer products are over-packaged: they are wrapped in (5) ……., put in a box. What can we do about the problem? Try recycling paper and plastic bottles. Never (6) ……. litter, even the smallest piece makes the problem (7) ……. . Avoid buying over-packaged things from supermarkets. Organize day-trips to the local countryside (8) ……. pick up rubbish. If we are (9) ……. for our clean cities, the problem may be solved. Recycling has been a common practice for most of human history since 400 BC. (10) ……. periods when resources were scarce, archaeological studies of ancient waste dumps show less household waste (such as ash, broken tools and pottery) because more waste was recycled in the absence of new material.

| | | | | |
|---|---|---|---|---|
| 1 | a Besides | b Although | c In spite | d Through |
| 2 | a decide | b avoid | c solve | d create |
| 3 | a against | b after | c under | d by |
| 4 | a also | B but too | c either | d but also |
| 5 | a wood | b plastic | c nylon | d glass |
| 6 | a pick up | b gather | c collect | d drop |
| 7 | a worse | b worst | c less | d better |
| 8 | a due to | b in order to | c according to | c for purpose |
| 9 | a irritated | b generous | c productive | d responsible |
| 10 | a While | b since | c During | d Ago |

**Wordlist to Unit 7 and Unit 8**

| | |
|---|---|
| 1. famine/hunger | 51.mankind |
| 2. to recycle paper | 52.breathing problems |
| 3. for industrial purposes | 53.rare species |
| 4. to become impossible | 54.to repair damage |
| 5. cattle farms | 55.contamination/pollution of air |
| 6. to reduce the air pollution | 56.safer future |
| 7. changes in the climate | 57.to pour into the sea |
| 8. to become impossible | 58.different approaches |
| 9. under threat | 59.rainforest |
| 10.although | 60.instead of |
| 11.destruction | 61.drought |
| 12.to protect the environment | 62.dangerous chemicals |
| 13.developing countries | 63.to absorb carbon dioxide |
| 14.the same root | 64.human activity |
| 15.to fight for survival | 65.to starve/starvation |
| 16.to adopt animals | 66.the annual growth |
| 17.to be connected with | 67.too late |
| 18.the modern world | 68.tiny sea creatures |
| 19.solar radiation | 69.alarming problem |
| 20.as a result | 70.moreover |
| 21.flood | 71.moisture |
| 22.important issue | 72.light and heat |
| 23.to supply oxygen | 73.relationship |
| 24.domestic/industrial waste | 74.to satisfy the needs |
| 25.to be threatened with extinction | 75.global warming |

| | |
|---|---|
| 26.to disappear | 76.to burn fossil fuels |
| 27.endangered species | 77.habitat |
| 28.to plant trees | 78.the total number of species |
| 29.to pollute/contaminate | 79.to cause the chain reaction |
| 30.fortunately | 80.as well as |
| 31.precipitation | 81.soil |
| 32.the Earth's surface | 82.the main reason |
| 33.the loss of a single species | 83.to destroy wild life |
| 34.average temperatures | 84.global disaster |
| 35.to provide people with food | 85.to cause changes |
| 36.at the expense of their lives | 86.to experience water shortages |
| 37.to increase | 87.motor vehicle |
| 38.sad news | 88.to play important role |
| 39.to drop litter | 89.illegal trade |
| 40.according to | 90.consequently |
| 41.oil | 91.coal |
| 42.deforestation | 92.to reduce/reduction |
| 43.variety of living organisms | 93.composition of the atmosphere |
| 44.ozone layer | 94.large amount of carbon dioxide |
| 45.to estimate | 95.biological diversity |
| 46.heat-trapping green house gases | 96.to continue to rise |
| 47.in the coming decades | 97.heavy storms/rains |
| 48.a clean-up campaign | 98.a litter-free street |
| 49.to give off dangerous fumes | 99.lack of oxygen |
| 50.to a greater extent | 100. needless to say |

**Revision tests**

**Variant 1**

1. Highly complex species ……. from relatively simple ones.

a) find b) research c) evolve d) characterize

2. Biological … is the variety of living organisms.

a) diversity b) coal c) surface d) fuels

3. Tropical …. is the main reason of the crisis.

a) warming b) extinction c) habitat d) deforestation

4. Carolus Linnaeus classified organisms … their structural similarities.

a) due to b) because of c) that's why d) according to

5. The earliest studies of biology were probably made by …. physicians.

a) ancient b) modern c) nervous d) scientific

6. The heart is the central organ of the … circulation.

a) water b) blood c) disease d) low

7. The peripheral …. system consists of the nerves leading from the brain and spinal cord.

a) heart b) skeletal c) nervous d) network

8. The … inside the tree tell about its age.

a) rings b) bones c) branches d) leaves

9. Mammoth is an … animal.

a) dangerous b) ordinary c) domesticated d) extinct

10. Jenner first used …. against smallpox.

a) vaccination b) body c) examination d) disease

**Variant 2**

1. Your mood …….. by many factors.

   a) influences b) is influenced c) influenced d) will influence

2. The nature of …….. has received much attention from psychologists.

   a) intelligent b) intellectual c) intelligence c) intel

3. A manner, a process or a regular way of doing something is …….

   a) method b) translation c) success d) level

4. Studies of central …….. system give another approach to this question.

   a) nerve b) musical c) nervous d) political

5. Pavlov gained fame as a …… in physiology.

   a) researcher b) politician c) fundamentals d) profession

6. Stress disorganizes the …… of a person and changes his normal behaviour.

   a) language b) journey c) activity d) habit

7. There are positive and …… psychic states that many people feel in everyday life.

   a) negative b) good c) important d) usual

8. In ancient times people didn't think that the brain was the center of ……. activity.

   a) scientific b) mental c) cultural d) attentive

9. Chemists found that over 100 chemical ……. take place in the brain every second.

   a) tasks b) formula c) science d) reactions

10. Many scientists came to the ……. about the role of environment.

    a) century b) conclusions c) development d) increase

**Variant 3**

1. … are so small that they cannot be seen by naked eye.

a) organs b) bodies c) cells d) animals

2. Microbiology studies all microorganisms, such as …., yeasts, moulds, algae.

a) bacteria b) birds c) plants d) reptiles

3. The rainforests are dying, rare plant and animal … are disappearing.

a) forests b) species c) dioxide d) zoos

4. Factories are polluting our rivers and lakes with dangerous ….

a) cars b) machinery c) chemicals d) paper

5. We don't want to damage the environment and … our newspapers and water.

a) cycle b) bicycle c) recycle d) cyclist

6. Physical traits are transmitted from generation to ….

a) offspring b) child c) baby d) generation

7. Ecology studies the relationships between organisms and their ….

a) environment b) parents c) species d) bodies

8. There has been much research of the composition and functions of nucleic … molecules.

a) structure b) acid c) methods d) cells

9. To explain how animals develop variations, biologists turn to ….. .

a) astronomy b) botany c) genetics d) microbiology

10. Through photosynthesis, plants absorb ….

a) carbon dioxide b) helium c) copper d) oxygen

**Variant 4**

1. In the 20th …. more emphasis was placed on experimental knowledge.

a) age b) century c) year d) thousand

2. To explain the variations in the species, biologists turn to genetics, science of …..

a) classification b) organs c) heredity d) mammals

3. Each population adapts to its own ……

a) environment b) body c) mountain d) system

4. Dolly the sheep was ……. from an adult cell of another animal.

a) founded b) cloned c) planted d) destroyed

5. The change in the …….. is called mutation.

a) bacteria b) life c) gene d) connection

6. …… studies animal and plant classification.

a) botany b) zoology c) taxonomy d) morphology

7. Andreas Vesalius gave the first ……. of the human body.

a) problem b) question c) description d) illness

8. Mutations can be produced by the …. of X-rays, other forms of radiation, or chemicals.

a) action b) science c) genetics d) gene

9. The …. species of finches give example of both forms of divergence.

a) variety b) various c) vary d) variant

10. Due to his discovery R. Koch became known all ….. the world.

a) about b) over c) in d) near

**Variant 5**

1… studies animal and plant classification.

a) taxonomy b) mycology c) genetics d) histology

2. Hippocrates believed that diseases have … causes.

a) difficult b) natural c) cell d) tissue

3. Gregor Mendel discovered the basic laws of …

a) size b) heredity c) hero d) character

4. Charles Darwin created his theory of … in the Origin of Species.

a) subdivision b) pollution c) evolution d) transition

5. William Harvey published his discovery of how … circulates through the body.

a) blood b) idea c) arteries d) structures

6. Baron Cuvier made major contribution in anatomy and paleontology, the study of …. life.

a) prehistoric b) spiritual c) family d) medical

7. Anton van Leeuwenhoek discovered …. forms of life.

a) medical b) good c) microscopic d) telescopic

8. C. Linnaeus classified organisms …. to their structural similarities.

a) because b) in order to c) according to d) that's why

9. Scientists produced the clone of a …, that was called Dolly.

a) bird b) sheep c) insect d) mouse

10. People of ancient India and China knew various medicinal … .

a) cultivation b) soil c) plants d) germs

**Variant 6**

1. The humanity is worried about the state of …

a) geology b) environment c) bacteria d) solution

2. The problem of deforestation may bring the lack of …

a) nitrogen b) oxygen c) mercury d) potassium

3. Nowadays people suffer from …, heart attacks, cancer and other diseases.

a) finance b) allergies c) nerves d) money

4. To reduce the level of pollution, people must … paper, plastic and bottles.

a) throw away b) store c) recycle d) bring home

5. Global … means much higher temperatures.

a) trade b) market c) warming d) culture

6. Human activity is changing the … of the atmosphere.

a) composition b) level c) number d) danger

7. The greenhouse … is heating up the atmosphere.

a) water b) gas c) solids d) methods

8. The vital activities of cells, tissues and organs are based on …

a) metabolism b) evolution c) situations d) complex

9. Kidneys, lungs and heart are … organs.

a) external b) internal c) limbs d) mental

10. 30% of Ukraine's territory is occupied by the area of natural …

a) studies b) vegetation c) variation d) venation

**Variant 7**

1. The heart is the central organ of the … circulation.

a) water b) blood c) disease d) low

2. The peripheral …. system consists of the nerves leading from the brain and spinal cord.

a) heart b) skeletal c) nervous d) network

3. The … inside the tree tell about its age.

a) rings b) bones c) branches d) leaves

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**Variant 8**

1. Stress disorganizes the …… of a person and changes his normal behaviour.

a) language b) journey c) activity d) habit

2. There are positive and …… psychic states that many people feel in everyday life.

a) negative b) good c) important d) usual

3. In ancient times people didn't think that the brain was the center of ……. activity.

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a) life b) extinction c) habitat d) deforestation

9. Carolus Linnaeus classified organisms … their structural similarities.

a) due to b) because of c) that's why d) according to

10. The earliest studies of biology were probably made by …. physicians.

a) ancient b) modern c) nervous d) scientific

**Variant 9**

1. Physical traits are transmitted from generation to ….

a) offspring b) child c) baby d) generation

2. Ecology studies the relationships between organisms and their ….

a) environment b) parents c) species d) bodies

3. There has been much research of the composition and functions of nucleic … molecules.

a) structure b) acid c) methods d) cells

4. To explain how animals develop variations, biologists turn to ….. .

a) astronomy b) botany c) genetics d) microbiology

5. Through photosynthesis, plants absorb ….

a) carbon dioxide b) helium c) copper d) oxygen

6. In the 20th …. more emphasis was placed on experimental knowledge.

a) age b) century c) year d) thousand

7. Many scientists came to the ……. about the role of environment.

a) century b) conclusions c) development d) increase

8. Each population adapts to its own ……

a) environment b) body c) mountain d) system

9. Dolly the sheep was ……. from an adult cell of another animal.

a) founded b) cloned c) planted d) destroyed

10. The change in the …….. is called mutation.

a) bacteria b) life c) gene d) connection