
Biology test has 30 questions on 4 pages. In each question, only one answer is correct. Each correct answer scores 1 point. There are no negative points.

1. Mushrooms are fruiting body of:
 - 1) Deuteromycotina
 - 2) Ascomycotina
 - 3) Basidiomycotina
 - 4) Mastigomycotina

2. Apple and pear belong to:
 - 1) birch family
 - 2) Dicot class
 - 3) monocot class
 - 4) oak family

3. Meristematic tissues are:
 - 1) cambium and phellogen
 - 2) phellogen and phellogerm
 - 3) cambium and collenchyma
 - 4) collenchyma and phellogen

4. Vascular (conductive) tissues are:
 - 1) cambium and xylem
 - 2) phloem and sclerenchyma
 - 3) xylem and phloem
 - 4) collenchyma and phloem

5. Plants absorb CO₂ during:
 - 1) nutrition
 - 2) cell respiration
 - 3) photosynthesis
 - 4) degradation of matter

6. In humans, oxygenated blood flows through:
 - 1) the right atrium and the right ventricle
 - 2) the left atrium and the left ventricle
 - 3) the right a atrium and the left ventricle
 - 4) the left atrium and the right ventricle

7. Which of the given values represents a normal blood pressure in humans?
 - 1) 190/120 mm Hg
 - 2) 120/80 mm Hg
 - 3) 100/50 mmHg
 - 4) 120/100 mm Hg

8. Air to the lungs comes through airways. Which of the following does not belong to the airways:
- 1) nasal cavity
 - 2) pharynx
 - 3) trachea
 - 4) Eustachian tube
9. In a large number of patients with stomach ulcer, the cause is *Helicobacter pylori* and this disease is successfully treated by/with:
- 1) avoiding the consumption of acidic food
 - 2) antibiotics
 - 3) vitamin C
 - 4) consuming a mushy food
10. Animal cell does not have:
- 1) ribosomes
 - 2) chloroplasts
 - 3) mitochondria
 - 4) nucleus
11. Synthesis processes in eukaryotic cell include:
- 1) lysosomes, Golgi apparatus
 - 2) endoplasmic reticulum, ribosomes
 - 3) vacuole, lysosomes
 - 4) vacuole, mitochondria
12. Timin and guanine are:
- 1) complementary in DNA molecule
 - 2) nitrogen bases
 - 3) polynucleotides
 - 4) included in the composition of RNA molecules
13. Active transport takes place:
- 1) down the concentration gradient
 - 2) against the concentration gradient
 - 3) is transport through a membrane which is performed without energy consumption
 - 4) all answers are correct
14. Homologues chromosomes segregate:
- 1) in anaphase of meiosis I
 - 2) in anaphase of meiosis II
 - 3) in anaphase of meiosis I and II
 - 4) none of the answers is correct
15. Determine which statement is correct. Mitochondria:
- 1) participate in the synthesis of ATP
 - 2) have their own DNA
 - 3) contain an external and internal membrane
 - 4) all answers are correct

16. Deficiency or surplus of a single chromosome in the human karyotype (chromosome set) is called:
- 1) aneuploidy
 - 2) polyploidy
 - 3) haploidy
 - 4) diploidy
17. In the case of incomplete dominance, cross-breeding of plants with pink flowers (heterozygotes), will produce in the next generation (F1):
- 1) only plants with white flowers
 - 2) only plants with red flowers
 - 3) plants with white, red and pink flowers
 - 4) none of the answers is correct
18. In the nervous system, glial cells are:
- 1) effector cells
 - 2) sensory cells
 - 3) supporting cells
 - 4) muscle cells
19. Nephron is a part of the system of organs for:
- 1) digestion
 - 2) reproduction
 - 3) excretion
 - 4) breathing
20. Insulin is a hormone produced by:
- 1) endocrine pancreas
 - 2) pituitary gland
 - 3) thymus
 - 4) thyroid gland
21. Which of the following is not a part of the central nervous system:
- 1) midbrain
 - 2) spinal cord
 - 3) ganglia
 - 4) pons Varoli
22. Which hormones are produced in the medulla of the adrenal gland:
- 1) corticosteroids
 - 2) thyroxine and triiodothyronine
 - 3) growth hormone and prolactin
 - 4) catecholamines
23. In the human genome, one of the largest genes is gene for:
- 1) protein keratin
 - 2) muscle protein actin
 - 3) muscle protein dystrophin
 - 4) alpha tropomyosin

24. Determine which statement is true for the DNA replication process:
- 1) this process is best studied on eukaryotic cells
 - 2) 10-20 times is slower in prokaryotes than in eukaryotes
 - 3) in prokaryotes, there are a number of places where replication begins
 - 4) each daughter-cell receives a DNA molecule in which one chain is parental and the other is newly synthesized
25. The process of transcription in eukaryotes is carried out:
- 1) in the nucleus
 - 2) in the cytoplasm
 - 3) on ribosomes
 - 4) on the external membrane of the endoplasmic reticulum
26. The start signal for the process of translation, at the same time the codon for amino acid methionine, is:
- 1) AUG
 - 2) UAA
 - 3) UAG
 - 4) UGA
27. Pacini bodies are sensitive to the change of:
- 1) pressure
 - 2) temperature
 - 3) intensity of light
 - 4) concentration of oxygen
28. Evolutionally observed, the most primitive body fluid in animals is:
- 1) hydrolymph
 - 2) hemolymph
 - 3) lymph
 - 4) blood
29. Which of these cells are not white blood cells?
- 1) lymphocytes
 - 2) monocytes
 - 3) eosinophilic granulocytes
 - 4) erythrocytes
30. Which of these blood types can a person with blood type A and rhesus factor Rh- receive?
- 1) A and Rh +
 - 2) 0 and Rh-
 - 3) AB and Rh-
 - 4) B and Rh-