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Question 1

Nitrifying bacteria belong to

Select one:

- a. chemotrophs
- b. phototrophs
- c. heterotrophs
- d. saprotrophs

Question 2

Fungi, like bacteria, lack

Select one:

- a. cell wall and nucleus
- b. chloroplasts and leucoplasts
- c. ribosomes and chromosomes
- d. cytoplasm and membrane organoids

Question 3

Nucleic acids, unlike starch, contain atoms of

Select one:

- a. nitrogen and phosphorus
- b. sulfur and magnesium
- c. hydrogen and oxygen
- d. potassium and calcium

Question 4

If the cells of the rye rhizoderm contain 14 chromosomes, then the number of chromosomes in the cells of the endosperm is equal to

Select one:

- a. 21
- b. 14
- c. 0
- d. 7

Question 5

Chemosynthetic bacteria are

Select one:

- a. iron bacteria
- b. cyanobacteria

- c. lactic acid bacteria
- d. fermentation bacteria

Question 6

The surface layer of the gastrula is formed by the cells of

Select one:

- a. mesoderm
- b. endoderm
- c. epithelium
- d. ectoderm

Question 7

The result of the analyzing crossing of a digeterozygous species with complete dominance of both traits in the offspring will be the splitting of traits by phenotype in the ratio of

Select one:

- a. 9 : 3 : 3 : 1
- b. 3 : 1
- c. 1 : 2 : 1
- d. 1 : 1 : 1 : 1

Question 8

Dominant autosomal polydactyly gene

Select one:

- a. is the norm of the reaction of the trait
- b. is manifested in heterozygotes
- c. is phenotypically manifested only in recessive homozygotes
- d. is located on the X chromosome

Question 9

Albinism is determined by a recessive autosomal gene, and hemophilia is determined by a recessive sex-linked gene. Specify the genotype of an albino hemophiliac woman

Select one:

- a. aaXhY
- b. AaXHY or AAXHY
- c. aaXhXh
- d. AaXHXH or AAXHXH

Question 10

The correct classification scheme for plants is -

Select one:

- a. species -> genus -> family -> order -> class -> phylum
- b. species -> class -> phylum -> order -> genus ->® family
- c. species -> family -> order -> genus -> class -> phylum
- d. species -> phylum -> class -> order -> genus -> family

Question 11

The prokaryotic cell type is characteristic of

Select one:

- a. eleutherococcus
- b. hydroid
- c. giardia
- d. staphylococcus

Question 12

Algae in the lichen body provide

Select one:

- a. its attachment to the substrate
- b. it with organic substances and energy
- c. the mushroom with water and minerals
- d. formation of hormones in the lichen body

Question 13

The bee's respiratory organs are

Select one:

- a. gills
- b. trachea
- c. bronchi
- d. the lungs

Question 14

Lanceolate belongs to

Select one:

- a. mollusca
- b. invertebrates
- c. acrania
- d. vertebrates

Question 15

The sympathetic nervous system reduces

Select one:

- a. diuresis
- b. ventilation of the lungs
- c. heart rate
- d. reabsorption in the renal tubules

Question 16

With a lack of vitamin B1, a person develops

Select one:

- a. night blindness
- b. beriberi
- c. scurvy

d. rickets

Question 17

The content of mineral salts in plasma is

Select one:

- a. 3%
- b. 7%
- c. 0,9%
- d. 9,1%

Question 18

Inside the stomach _____ is/are disintegrated

Select one:

- a. nucleic acids
- b. milk sugar
- c. glycogen
- d. starch

Question 19

Bleeding of gums in humans develops due to the deficiency of vitamin

Select one:

- a. B1
- b. C
- c. A
- d. D

Question 20

Analogous organs are

Select one:

- a. the eyes of a human and a squid
- b. the hand of a human and a gorilla
- c. cat claws and chimpanzee nails
- d. lizard scales and bird feather

Question 21

What is the protective role of leukocytes in the human body?

Question 22

Where are the nerve centers that regulate voluntary and involuntary breathing movements? What is the role of adrenaline in pulmonary ventilation?

Question 23

Cacti belong to the group of succulent plants. What adaptive significance do such structural features of cacti as the spherical shape of the stem, stomata deeply immersed in the stem tissue and modified thorn leaves have? Why have most cacti developed a superficial root system?

Question 24

What are the similarities and differences in the structure and functions of chloroplasts and leukoplasts? Why are starch grains small in chloroplasts, but large in leukoplasts? Which vegetative organs of a plant are rich in leukoplasts or chloroplasts? How does starch appear in leukoplasts?