

تعداد سوالات: تستی: ۳۰ تشریحی: ۰

زمان آزمون (دقیقه): تستی: ۶۰ تشریحی: ۰

سری سوال: یک ۱

عنوان درس: متون زیست شناسی

رشته تحصیلی/کد درس: زیست شناسی گرایش عمومی ۱۱۱۲۰۲۵

1-One type of vascular tissue in plants that transports organic nutrients both up and down the stem or root?

- |                 |                    |
|-----------------|--------------------|
| 1. mitochondria | 2. sieve tube      |
| 3. phloem       | 4. plasma membrane |

2-The ..... organisms are generally large in size.

- |                |                  |                 |                |
|----------------|------------------|-----------------|----------------|
| 1. many-celled | 2. single-celled | 3. thick-walled | 4. thin-walled |
|----------------|------------------|-----------------|----------------|

3-The cells of what animal were cultured in 1907 by a biologist?

- |        |          |           |               |
|--------|----------|-----------|---------------|
| 1. man | 2. plant | 3. hicken | 4. salamander |
|--------|----------|-----------|---------------|

4-The smallest bacteria are probably as small as cells can be and still contain the minimum quantities of the essential .....

- |               |          |            |             |
|---------------|----------|------------|-------------|
| 1. components | 2. cells | 3. nucleus | 4. exchange |
|---------------|----------|------------|-------------|

5-The cell passes all the ..... to the next generation.

- |                |                    |
|----------------|--------------------|
| 1. atom        | 2. energy          |
| 3. information | 4. plasma membrane |

6-The form of cell division in which a small part of the parent`s body separates from the rest and develops into a new individual.

- |                    |                  |
|--------------------|------------------|
| 1. parthenogenesis | 2. fragmentation |
| 3. fission         | 4. budding       |

7-Which one of following sentences is correct?

1. In fission, the cell division is meiosis.
2. Old age is an important factor in the decrease of the number of individuals of a species.
3. In the asexual generation of coelenterates the organisms are haploid.
4. The original macronucleus divides meiotically in the process of sexual reproduction of paramecia.

8-The organs that produce the gametes or sex cells are called .....

- |              |                    |
|--------------|--------------------|
| 1. gonads    | 2. chromosomes     |
| 3. oogenesis | 4. spermatogenesis |

9-Which one of organisms liberate their sperm and egg into the water?

- |           |                  |                |              |
|-----------|------------------|----------------|--------------|
| 1. flukes | 2. coelenterates | 3. sea urchins | 4. tapeworms |
|-----------|------------------|----------------|--------------|

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10-The mode of reproduction that an individual is divided in two daughter parts which are almost equal and the cell divides mitotically?

- |                  |                    |
|------------------|--------------------|
| 1. fragmentation | 2. fission         |
| 3. budding       | 4. parthenogenesis |

11-A class of the phylum protozoa possessing small, bristle-like cytoplasmic projection on the free surface of the cells?

- |            |             |               |              |
|------------|-------------|---------------|--------------|
| 1. ciliata | 2. sporozoa | 3. flagellata | 4. rhizopoda |
|------------|-------------|---------------|--------------|

12-The first animals ..... we call protozoa are single-celled forms.

- |        |          |         |          |
|--------|----------|---------|----------|
| 1. how | 2. which | 3. what | 4. where |
|--------|----------|---------|----------|

13-The protozoa are in general like animals in their nutrition, behavior and .....

- |               |             |             |           |
|---------------|-------------|-------------|-----------|
| 1. locomotion | 2. movement | 3. motility | 4. motion |
|---------------|-------------|-------------|-----------|

14-The organism that causes malaria in a human being is a .....

- |            |               |              |             |
|------------|---------------|--------------|-------------|
| 1. ciliata | 2. flagellata | 3. rhizopoda | 4. sporozoa |
|------------|---------------|--------------|-------------|

15-Which one of the followings is needed by each protozoan cell for the digestion of food?

- |               |            |            |           |
|---------------|------------|------------|-----------|
| 1. false foot | 2. vacuole | 3. channel | 4. cilium |
|---------------|------------|------------|-----------|

16-During cell division parts of chromosomes are exchanged and we have the phenomenon of .....

- |         |              |                |                  |
|---------|--------------|----------------|------------------|
| 1. gene | 2. recessive | 3. inheritance | 4. crossing-over |
|---------|--------------|----------------|------------------|

17-The basic unit of inheritance is?

- |               |         |        |                  |
|---------------|---------|--------|------------------|
| 1. chromosome | 2. gene | 3. DNA | 4. crossing-over |
|---------------|---------|--------|------------------|

18-Which one of following sentences is incorrect?

1. The determination of inheritance in man has been great interest to researchers.
2. Genetics have managed to breed cows with large quantities of milk.
3. The eggs with thick shells have been produced by geneticists.
4. One pair of characteristics studied by Mendel was wrinkled versus round seeds.

19-Which one of researchers was the first investigator who managed to find out about the laws of genetics?

- |            |           |          |            |
|------------|-----------|----------|------------|
| 1. Pasteur | 2. Mendel | 3. Hooke | 4. Galilei |
|------------|-----------|----------|------------|

20-It is only at the time of cell division that ..... can be easily seen.

- |              |                |              |           |
|--------------|----------------|--------------|-----------|
| 1. ribosomes | 2. chromosomes | 3. lysosomes | 4. nuclei |
|--------------|----------------|--------------|-----------|

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21- Any of a group of catalytic proteins that are produced by living cells?

1. radiant energy      2. ATP      3. enzyme      4. lipids

22- Land plants absorb the water (H<sub>2</sub>O) required for the photosynthetic process through their .....

1. stomata      2. leaf      3. chlorophyll      4. roots

23- In the process of photosynthesis, chlorophyll acts as a .....

1. catalyst      2. ATP  
3. water absorbance      4. radiant energy

24- The movement of gases in and out of the leaf is controlled by the guard cells surrounding the ..... ?

1. nuclei      2. stomata      3. cytochromes      4. chlorophyll

25- In all higher plants the photosynthetic structures are large and known as .....

1. lysosomes      2. vacuoles      3. stomata      4. chloroplasts

26- A person specialized in the study of the interrelationships which exist between organisms and their environment?

1. biologists      2. embryologists      3. ecologists      4. geneticists

27- Which one of animals have a remarkable ability to change their color and pattern as they move from a dark to a light background?

1. human      2. birds      3. insects      4. frogs

28- Which one of following sentences is correct?

1. The mouthparts of all insects are adapted for chewing vegetation.  
2. The trophic position of an organism is related to its ecologic niche.  
3. A eurythermic organism is one which will tolerate narrow ranges of temperature.  
4. The type of life in the desert and arctic indicates the importance of topsoil as a limiting factor.

29- The protein molecules of wool are cross-linked with many ..... bridges.

1. enzyme      2. disulfide      3. magnesium      4. ATP

30- The porosity of the soil is of great importance to the .....

1. frogs      2. aquatic animals      3. plants      4. birds