

نام درس: متون زیست شناسی

رشته تحصیلی: گرایش: زیست شناسی (عمومی)

کد درس: ۱۱۱۲۰۲۵

تعداد سؤال: ۲۵ نسبی ۲۵ تکمیلی ۵ تشریحی ۵

زمان امتحان: تستی و تکمیلی ۴۵ دقیقه تشریحی ۴۵ دقیقه

تعداد کل صفحات: ۴

* استفاده از فرهنگ لغات مجاز نیست.

1. The animals which secrete milk to nourish the young are:
 - a. vertebrates
 - b. invertebrates
 - c. mammals
 - d. reptiles
2. What cells lose their nucleus in the process of maturation?
 - a. nerve cells
 - b. muscle cells
 - c. red blood cells
 - d. hepatic cells
3. The living quality is based upon the:
 - a. metabolism and moving
 - b. moving and predation
 - c. growth and reproduction
 - d. flow of energy and matter
4. A structure in the cell which play a prominent role in cell division:
 - a. mitochondria
 - b. endoplasmic reticulum
 - c. ribosome
 - d. centriole
5. The members of what group freely interbreed among the individuals and produce fertile offspring?
 - a. class
 - b. genes
 - c. order
 - d. species
6. An animal with hermaphroditic feature has:
 - a. testes only
 - b. ovary only
 - c. both gonad
 - d. no special gonad
7. The queens in honeybee colony come into being if:
 - a. the parthenogenesis being done
 - b. Unfertilized egg nourishing with rich diet
 - c. Worker larva being fed with honey
 - d. Female larvae being fed with rich diet
8. In which group of animal sperm has no motile flagellum:
 - a. mammalian
 - b. arthropods
 - c. birds
 - d. coelenterates
9. The first animals must have been water- dwelling because:
 - a. they were able to form colony.
 - b. the problem of living in water is lesser than on dry land.
 - c. They don't possess special organ for excretion
 - d. They can fed on first plants
10. One choice is out of category:
 - a. flagellate
 - b. Rhizopoda
 - c. protozoa
 - d. coelenterate

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11. Why the parasites select the special tissues?
- They must be sensitive to cells in host.
 - Other cells and organs reject the parasite.
 - The position of the organ is very important
 - The size of cells for invasion is important
12. Sex linked traits are:
- Characters that is appearing in male only.
 - The presence of some traits in female only.
 - Traits controlled by genes on sex chromosomes
 - The location of one or more genes on sex chromosomes.
13. The mechanism by which the number of chromosomes is kept constant:
- mitosis
 - meiosis
 - cross breeding
 - fertilization
14. any change in the structure of DNA or gene is said:
- segregation
 - mutation
 - constriction
 - expression
15. the species are differ from each other by:
- The number of chromosomes.
 - The position of Centromere in chromosomes
 - The effect of the environment they live in
 - The nature of the hereditary factor and chromosomes number
16. Which energy is transmitted by waves?
- heat
 - chemical
 - light
 - potential
17. choose the false sentence:
- Chlorophyll is utilized during photosynthesis.
 - The main pigment in photosynthesis is chlorophyll.
 - Chlorophyll act as a catalyst in the process.
 - Carbon dioxide is used up during photosynthesis
18. Where dose the green pigment of the leaf is located?
- chloroplasts
 - mitochondria
 - uniformly distributed
 - a & c

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19. Which compound provides the energy for dark reaction of photosynthesis?
a. NADH b. NADPH c. FADH₂ d. carotene
20. What is not the main components of lamellar structure of granum?
a. chlorophyll b. sugar c. carotene d. protein
21. which organism makes the second trophic level?
a. producer b. herbivores c. carnivores d. fungi
22. What is not a physical factor?
a. moisture b. temperature c. salinity d. predation
23. What factor is important for desert life?
a. temperature b. light c. oxygen d. topsoil
24. Concealing coloration:
a. helps an animal to hind itself b. Helps to adopted with salinity
c. To bear a certain environmental factor d. Helps an organism to find a food
25. How are the mouth parts of certain insects adapted for eating nectar?
a. chewing b. sucking c. biting d. grinding

Complete each of the following sentences by using one word. Write the word on the answer sheet.

- Complex assemblages are formed by the combination of simple
- The most..... and uncertain method of uniting the gametes is called external fertilization.
- The sexual reproduction in many species of phylum protozoa is known as.....
- Ribulose phosphate is regenerated..... a series of reactions.
- The dissolved oxygen in a pond is classified as a..... part of ecosystem.

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1. translate the following paragraph into Persian

Mendel kept different kinds of pea and closely followed the heredity of seven traits in successive generations, for. example, yellow against green seeds, round against wrinkled, etc. Mendel succeeded in discovering regular patterns in the inheritance in different generations and found certain relationships among them. the plants in F_1 , generation resembled to one of the parents, but plants in F_2 generation had an approximate resemblance ratio of 3:1

2. Write a Summery of the following text about 35 words.

The first animals, like the first plants, must have been water-dwelling, single- celled forms, for the problem of living in water is not nearly as severe as that of the problem of living on dry land. The present- day descendents of these primitive animals we place in the phylum protozoa. In a minority of species, several daughter cells adhere to each other, forming a colony; but in most of the protozoa , the individual consists of a single cell. Their dependence on a watery medium is even greater than that of the algae. Some species can produce a thick-walled resting phase called a cyst.

3. Define the following biological terms in English.

A. gill B. respiration C. phloem

4. Give one word synonym or equivalent for each:

A. regulate B. requires C. adopted

5. Write the Greek and Latin roots of the following words with their English meaning:

A. acellular B. parasite C. primary