

Biology - FSc Part 1 Biology Full Book Short Questions Test

Q1. Differentiate between Coelomates and Acoelomates.

Ans 1: Acoelomates: In phylum platyhelminthes there is no body cavity or coelom and mesoderm from a loose cellular tissue called mesenchyma or parenchymal which fills the space between ectoderm and endoderm.

Ans 2: Coelomates: Animals having true coelom or body cavity are called coelomates. Coelom is present between body wall and digestive track and lined by mesoderm. It is filled with coelomic fluid.

Q2. Differentiate between organisms and cellular respiration.

Ans 1: Organisms respiration: The exchange of respiratory gasses between the organisms and its environment is called external respiration/organisms respiration.

Ans 2: Cellular respiration: The oxidation process in which inhaled air is used to oxidize organic molecule to obtain energy. This reaction takes place inside the cell so it is also known as cellular respiration.

Q3. Why kingdom protista is regarded as a polyphyletic group of organisms?

Ans 1: Based on diversity most biologists regard the protist kingdom as a polyphyletic group of organisms; that is the protists probably do not share a single common ancestor.

Q4. What is major component of fungal cell wall?

Ans 1: Chitin in their cell wall is major component.

Q5. Differentiate between diploblastic and triploblastic animals.

Ans 1: Diploblastic: These animals have two germinal layers i.e. ectoderm and endoderm.

Ans 2: Triploblastic: These animals have three germinal layers i.e. ectoderm, mesoderm and endoderm.

Q6. What is cofactor? Give its role.

Ans 1: Some enzymes consist of solely of proteins. Other have a non-protein part known as co-factor, which is essential for the proper function of the enzymes. The co-factor usually acts as a bridge between the enzymes and its substrate, often it contributes directly to the chemical reaction which brings about catalysis.

Q7. In what way, substrate concentration affects the rate of reaction?

Ans 1: At low substrate concentration is kept constant and the amount of substance is increased, a point is reached when a further increase in the substrate does not increase the rate of reaction any more. This is because at high substrate level all the active sites of the enzyme are saturated with substrate. After this the rate of enzyme reaction becomes steady and addition of substrate will not have the positive effect.

Q8. Define antenna complex of reaction center.

Ans 1: The antenna complex has many molecules of chlorophyll a and b and carotenoids, most of them are channeling the energy to the reaction center, while carotenoids most of them are channeling the energy to the reaction center. The reaction center has one or more molecules of chlorophyll a along with a primary electron acceptor and associated electron carrier of the electron transport system.

Q9. What are fronds?

Ans 1: In ferns leaves are large size and are composed which is called fronds. It is a characteristic of the fern group.

Q10. Write the name of four common human viral diseases.

Ans 1: Viral diseases are polio, smallpox, measles, mumps and influenza.

Q11. What is phage?

Ans 1: When viral DNA is incorporated into bacterial chromosomes it is called recombinant DNA or prophage.

Q12. Differentiate between internal respiration and external respiration.

Ans 1: External respiration: The exchange of respiratory gases between the organism and its environment is called external respiration.

Ans 2: Internal respiration: The oxidation process in which inhaled air is used to oxidize organic molecules to obtain energy. This reaction takes place inside the cell so it is also known as cellular respiration.

Q13. What are red tides?

Ans 1: Dinoflagellates exhibit occasional population explosions or blooms. These blooms frequently color the water orange, red or brown and are called red tides.

Q14. Write two distinguished characters of kingdom protista.

Ans 1: Two distinguishing characters of protista are: Mode of nutrition, Mode of reproduction.

Q15. Write the name of four eras of geological time chart.

Ans 1: Four eras of geological time scale are :1.Proterozoic 2.Paleozoic 3.Mesozoic 4.Cenozoic.

Q16. What is Plasmodium? Give name of its host?

Ans 1: Plasmodium: is a type of apicomplexans that cause malaria in humans. Its hosts are as follows :

- Human beings
- Female mosquito Anopheles

Q17. Define microphagous feeding with example.

Ans 1: The animals which feed on large food particles or pieces are macrophagous feeders. In includes.

Tentacular feeding for example as in hydra.

Scraping : it is a type of feeding in which large food particles is cut down into smaller food particles. In snail the rasping tongue is used for cutting the large leaves into smaller leaves. The radula moves over the leaves which are held by the lips of the snails. The smaller pieces are then pushed back towards the pharynx.

Q18. Name two vegetative and two reproductive evolutionary character of tracheophytes.

Ans 1: Reproductive characters are formation of seed and fruit. Vegetative character are presence of vascular tissues and differentiation of plant body into root stem and leaves.

Q19. Why non septate hyphae are called coenocytic hyphae?

Ans 1: Aseptate hyphae lack septa and are not divided into individual cell. Instead these are in the form of elongated multinucleate large cell. Aseptate hyphae are called coenocytic hyphae, in which cytoplasm moves effectively.

Q20. What is meant by systemic circulation?

Ans 1: In humans the systemic arch distributes blood to different part of the body and then the blood from the body return to the heart, in the right atrium via precaval and postcaval. This is systemic circulation.