

Biology - FSc Part 1 Biology Full Book Short Questions Test

Q1. Distinguish between prosthetic group and Co-enzyme.

Ans 1: Prosthetic Group: If the non proteins parts are covalently bonded it is known as prosthetic group.

Ans 2: Co.Enzyme: If co factor is loosely attached to the proteins part it is called co enzyme,It is closely related to vitamins which represent the essential raw material from which co enzymes are made.

Q2. Differentiate between spiracles and tracheoles.

Ans 1: Spiracles : The trachea open to exterior by pores on the surface called spiracles,There are ten pairs of spiracles present on the lateral sides of the body.

Ans 2: Tracheoles: The main trachea divide and subdivide forming very fine tubules called trachelos .They continuously supply oxygen to living cells directly.

Q3. What is periplasmic space? In which bacteria it is present?

Ans 1: The periplasmic is a concentrated gel like matrix in the space between inner cytoplasmic membrane and bacterial outer membrane is called periplasmic space. It is present in Gram negative bacteria.

Q4. Define Heat of vaporization,what is heat of vaporization of water?

Ans 1: Water absorb much as of heat as changes from liquid to gas.Heat of vaporization is expressed as calories absorbed per gram of vaporized water.

The specific heat of vaporization of water 574 k cal/kg.

Q5. Differentiate between apoenzyme and holoenzyme.

Ans 1: Apoenzyme: The proteins part of enzyme is called apoenzyme or enzyme without non protein part is called apoenzyme.

Ans 2: Holoenzyme: A completely enzyme including co factor is called holoenzyme.

Q6. Write down symptoms in plants caused by deficiency of phosphorus and potassium.

Ans 1: Deficiency of phosphorus in the soil stunted growth of the roots of plants.
Potassium deficiency in soil leaf margin yellow and premature death of the plant.

Q7. Define antenna complex of reaction center.

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

Q8. What is parasexuality?

Ans 1: Desipte absense of sexuall reproduction,imperfect fungi show special kind of genetic recombination called parasexuality in which portion of chromosomes of two nuclei laying in the same hyphae are exchanged.

Q9. What is earliest group of vascular plant? Quote only two examples of its extinct plants.

Ans 1: Psilopsida is the earliest group of vascular plants.Examples of extinct plants are Horneophyton and Cooksonia.

Q10. What is meant by resolution of microscope?

Ans 1: The minimum distance at which two objects can be seen as separate objects is called resolution.

Q11. Differentiate between photosystem-I and photosystem-II?

Ans 1: Photosystem-I: photosystem-I is named so because it is discovered first.Photosystem - 1 has chlorophyll a molecule which absorb maximum light of 700 nm and is called P₇₀₀.

Ans 2: Photosystem -II : Photosystem is named because it is discovered after the discovery of photosystem - I,whereas reaction center of photosystem -II has the form of chlorophyll a which absorbs best the light of 680 nm so it is also called P₆₈₀.

Q12. What is the advantage of digestive tract as compared with a digestive cavity?

Ans 1: Advantage of digestive tract is that,it is modified in to various structures which play their role in digestion of food in various ways i.e. both chemically and mechanically but in case of gastrovascular cavity there is no modification,there is only one chamber where food is digested.

Q13. What is emphysema?Give its effects and cause.

Ans 1: Emphysema is breakdown of alveoli.In the result of constant coughing the absorbing surface of the lungs is greatly reduced.

Q14. What are nucleohistones?

Ans 1: The nucleochistones are present in chromosomes.These conjugated proteins are not only of structural,but also are of functional significance. They play an important role in regulation of gene expression.

Q15. What is porphyrin ring of a chlorophyll molecule?

Ans 1: Chlorophyll molecule has two parts head and tail. The head is complex porphyrin ring which is made up of four joined smaller pyrrole ring composed of carbon and nitrogen atoms. An atom of magnesium is present in the center of porphyrin ring and is coordinated with the nitrogen of each pyrrole ring.

Q16. Define pressure flow theory.

Ans 1: It states that the flow of solution in the sieve elements is driven by an osmotically active generated pressure gradient between source and sink. It was proposed by E. Munch.

Q17. Give two functions of smooth endoplasmic reticulum.

Ans 1: Lipid Synthesis: The SER is involved in the metabolism of lipid formation.
Detoxify drugs: SER helps to detoxify the harmful effect of drugs.

Q18. Write example of parasitic apicomplexan. Give symptoms of malaria.

Ans 1: They are a large group of parasitic Protozoans which cause serious diseases like malaria in human. They lack structure of locomotion but move by flexing.

Q19. What are cofactors? Give its types.

Ans 1: Cofactors are non-protein parts of enzymes, which are essential for the proper functioning of the enzymes. Some enzymes consist solely of proteins, others have a non-protein part known as a cofactor. Types of cofactors are activators, prosthetic group and co-enzymes.

Q20. What are products of light reaction of photosynthesis.

Ans 1: NADPH₂ and ATP are products of light reaction.
