

Biology - 12th Class Biology Full Book Short Questions Preparation

Q1. Define genetic code. Give its properties.

Ans 1: Genetic code is combination of three nucleotides, which specify a particular amino acid.

Ans 2: Properties of genetic code are:

i) Genetic code is universal ii) Genetic code is comma less iii) Genetic code is triplet.

Q2. Give the location of desert biomes. Write the name of desert in western and southern Punjab.

Ans 1: This is located in western Punjab while Cholistan is located in Southern Punjab.

Q3. Define reflex arc and give its components.

Ans 1: The path followed by the nerve impulse during the reflex action is called reflex arc. Its components are receptors, sensory neurons, inter neuron, motor neuron and effectors.

Q4. What changes in cell take place during diplotene?

Ans 1: The paired chromosomes repel each other and begin to separate. Separation, however, is not complete, because homologous chromosomes remain united by their point of interchange. Each bivalent has at least one such point, the chromatids otherwise separated.

Q5. Define foliose lichens with one example. OR What is foliose lichen stage? Give an example.

Ans 1: In this stage the lichens are just crumpled leaves attached at one point. It produces shade to the crustose lichens as a result of which their growth is reduced. Examples are Dermatocarpon, Parmelia.

Q6. What are biogeochemical cycles? Give an example.

Ans 1: Circular movement or recycling of the elements between the organism and the environment is called biogeochemical cycle.

Q7. What are Ovoviviparous?

Ans 1: In some animals like duck bill platypus internal fertilization leads to internal development of the young ones in a shelled egg and when development is completed shelled egg is laid which hatches the offspring, such animals are called ovoviviparous.

Q8. Give symptoms and causes of sciatica.

Ans 1: It is characterized by stabbing pain radiating over the course of sciatic nerve. It is caused due to injury of proximal sciatic nerve, which might follow a fall, a herniated disc or improper administration of an injection into the buttock.

Q9. Give causes and symptoms of Down's syndrome. Or Write symptoms of Down's syndrome.

Ans 1: The cause of Down's syndrome is the missing of 21st chromosomes due to non disjunction. The affected individuals have a flat, broad face, squint eyes with folds in the inner corner and protruding tongue, mental retardation and defective development of central nervous system.

Q10. What is polymerase chain reaction?

Ans 1: It is a process by which millions of copies of a single gene or any specific part of DNA can be made quickly in test tube. PCR is very specific and targeted DNA Sequence can be less than one part in a million of the total DNA sample.

Q11. Define aging? Write its two signs.

Ans 1: Negative physiological changes in an organism are called aging. Its two symptoms are: Wrinkled skin and grey hairs.

Q12. Differentiate between necrosis and apoptosis.

Ans 1: Necrosis: Cell death due to tissue damage is called necrosis

Ans 2: Apoptosis: Internal programme of events and sequence of morphological changes by which cell commits suicide is collectively called apoptosis.

Q13. What is Gonorrhoea and who caused it?

Ans 1: It is caused by a gram positive bacterium *Neisseria gonorrhoeae*, mainly affecting the mucous membrane of urogenital tract. New born infants may acquire serious eye infections if they pass through the infected birth canal. It is highly contagious through sexual contacts.

Q14. Define seed dormancy. Write its significance. Give its importance.

Ans 1: It is special condition of rest, which enables an embryo to survive the unfavorable environmental conditions.

Ans 2: Its importance is that during this period of rest the embryo ceases its growth.

Ans 3: This is of great survival importance to the plant in that it prevents the dormant seeds from germinating in response to condition such as long spell of warmth in winter.

Q15. What is meant by resting membrane potential?

Ans 1: A typical neuron at rest is more positive outside than inside the cell membrane. This net difference in charge between the inner and outer surface of a non-conducting neuron is called resting membrane potential.

Q16. Differentiate between gerontology and teratology.

Ans 1: Gerontology: Study of aging is called gerontology.

Ans 2: Teratology: Teratology is the branch of biology, which deals with abnormal developments and their causes.

Q17. Give four importance of mitosis.

Ans 1: i) It transfers unchanged genetic information to the daughter cells
ii) It helps in all types of asexual reproduction like cloning, tissue culture etc
iii) It helps in healing of wounds
iv) It maintains the chromosomes number constant.

Q18. Differentiate between determinate and indeterminate growth.

Ans 1: Determinate growth: in higher plants growth occurs at certain points called meristem and whole body does not grow in different planes such a growth is called determinate growth.

Ans 2: Indeterminate growth: in lower plants whole body is capable of growth and which produced an irregular body of plant. Such a growth is called indeterminate growth.

Q19. What is primitive streak?

Ans 1: In the chick the mesodermal cells do not invaginate but migrate medially and caudally from both sides and create a mid line thickening called primitive streak.

Q20. Define gene pool.

Ans 1: The total aggregate of genes present in a population is called gene pool or whole genetic information present in a population is called gene pool.
