

Biology - 12th Class Biology Full Book Short Questions Preparation

Q1. What is sodium potassium pump?

Ans 1: These are the special proteins which are present on the neuron membrane and act as pump to move the K ions across the membrane during the transmission of nerve impulse.

Q2. What is leutinizing hormone (LH). Write its role.

Ans 1: LH works with FSH to stimulate oestrogen secretion and rupture mature follicles to release ovum. It also causes leutinizization of follicle after ovulation and along with prolactin maintains corpus leuteum.

Q3. Differentiate between reflex arc and reflex action.

Ans 1: Reflex arc The path followed by the nerve impulse during the reflex action is called reflex arc.

Ans 2: Reflex Action Involuntary actions are called reflex action. This action is performed without the involvement of brain.

Q4. Explain briefly glomerular filtrate.

Ans 1: It is the filtrate which is produced by the filtration of blood from the glomerulus, it contains glucose, amino acid, small blood cells, salts, nitrogenous wastes and water.

Q5. What are apical meristems?

Ans 1: These are the cells which are capable of cell division and are involved in the primary growth of plants.

Q6. What are palindromic sequences? OR Define palindromic sequence.

Ans 1: Restriction enzymes cut the DNA at very specific sites characterized by specific sequence of four or six nucleotides arranged symmetrically in the reverse order. Such sequences are known as palindromic sequences.

Q7. Define haploid parthenogenesis.

Ans 1: In the honey bees male develops without fertilization of egg. The queen bee carrying male gametes from the male has the ability to lay eggs that have not been fertilized. If these eggs are not fertilized then they develop into haploid offspring. It is called haploid parthenogenesis.

Q8. Define geotropism.

Ans 1: Response of plant parts to the gravity is called geotropism. Roots show positive geotropism and stem shows negative geotropism.

Q9. Differentiate between altitude and latitude.

Ans 1: Altitude: means height from sea level toward high mountains the altitude increases. The absolute height of a location usually measured from sea level.

Ans 2: Latitude: means the distance from equator towards poles as we go away from equator towards poles latitude increases.

Q10. Name salt tolerant plant.

Ans 1: Rice and sugar cane are salt tolerance crops.

Q11. Define Desertification.

Ans 1: Conversion of cultivated or fertile soil into barren land or into desert form is called desertification.

Q12. Differentiate between monohybrid and dihybrid cross.

Ans 1: Monohybrid: A cross between two organisms which differ only in one character is called monohybrid cross.

Ans 2: Dihybrid: A cross between two organisms which differ only in two character is called dihybrid.

Q13. Differentiate between homologous and analogous organs. Or Define analogous organs.

Ans 1: Homologous Organs: Organs which have similar anatomical structure but perform different functions are called homologous organs.

For Example: Arm of man, front leg of horse, wing of bat and bird are homologous organs.

Ans 2: Analogous Organs: Organs which have different structures but perform same functions are called analogous organs. e.g. wings of bat, birds & insects.

Q14. Write down the mechanism of rapid movements of leaflets.

Ans 1: When Mimosa (Touch me not) leaf is touched, it rapidly loses its turgor pressure due to exosmosis which results in closing of leaves. K^+ ions also play a role in this movement.

Q15. Define probability.

Ans 1: It is the chance of an event to occur.

Q16. Differentiate between malignant and benign tumor.

Ans 1: Malignant tumor: Malignant tumor or cancer divides more rapidly, mostly invade surrounding tissues get enter in circulatory system for spreading into other body parts.

Ans 2: Benign tumor: The small sized local tumor is called benign tumor. Its cells behaves like normal cells and less dangerous.

Q17. Define SRY gene.

Ans 1: SRY stands for sexual determining region of y. It is the part of Y-chromosomes in human males which is responsible for male characters of maleness.

Q18. Write four similarities of nervous and chemical coordination.

Ans 1: Similarities are as follow

Ans 2: Both system help in co-ordination.

Ans 3: both are homoeostatic in function.

Ans 4: Both release chemical messenger in extracellular space of body.

Ans 5: Both systems synthesize chemical messengers

Q19. Define tonoplast, give its function as well.

Ans 1: The wall of vacuole is called tonoplast, it is single membrane. It maintains the turgor pressure and solute concentration.

Q20. Write major ecosystem in Pakistan. OR Enlist major ecosystem in Pakistan.

Ans 1: Major ecosystem of Pakistan are

- Ans 2:**
- a) Temperate deciduous forests
 - b) Coniferous alpine and boreal forests
 - c) Grassland ecosystem
 - d) Desert ecosystem
 - e) Tundra ecosystem
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