

## **Class XI BIOLOGY REVISION QUESTIONS FOR HALF YEARLY –**

### **UNIT 1Chapter 1,2,3**

#### **1 MARK QUESTIONS**

1. Who is known as the father of taxonomy and why?
2. Where was the first zoological museum started?
3. Name the two kingdoms of the living world proposed by Linnaeus?
4. Who introduced five kingdom classification?
5. What is phylogenetic classification?
6. Name the major groups of Monera?
7. What is syngamy?
8. Name the group of fungi commonly called sac fungi?
9. What is alternation of generation?
10. Which are the pigments responsible for red colour of red algae?
11. What is endosperm?
12. What is open type of circulatory system?
13. What is blubber?
14. What are flame cells?
15. Name two divisions of vertebrata?

#### **2 Marks**

1. What do you understand by binomial nomenclature?
2. What is two kingdom classification? Give its drawback.
3. How are viroids different from virus?
4. Why do mosses thrive only in moist habitat?
5. What do you understand by double fertilization?
6. Explain the structure of prothallus of fern?
7. What are the unique features of sponges?
8. How important is the presence of air bladder in pisces?

#### **3 Marks**

1. Botanical gardens are living herbaria. Comment.

2. What are the universal rules for nomenclature?
3. Binomial nomenclature is the most acceptable mode of naming organisms. Why?
4. In which group are the following found: Zygosporangium, Ascospore, Sporangium.
5. Give the importance of lichens.
6. What do the terms phycobiont and mycobiont signify?
7. What are the reasons for dominance of vascular plants on land?
8. Which features make reptiles successful on land?

### **5 Marks**

1. What do you understand by herbarium? How it is prepared?
2. What are the salient features of kingdom fungi?
3. Explain the different types of life cycle patterns exhibited by plants?
4. Give the important characters of Phylum Echinodermata?
5. What are characteristics of chordata?

## **UNIT II**

### **1 MARK QUESTIONS**

1. How do pneumatophore roots help in gaseous exchange?
2. What is coleorrhiza?
3. Give the function of root hair?
4. Which meristem does produce growth in length?
5. From where do the lateral roots originate?
6. Where are RBC formed?
7. What is the function of heparin?

### **2 marks**

1. Differentiate between epigynous flower and perigynous flower?
2. Why are xylem and phloem called complex tissues?
3. What are the functions of epithelial tissues?
4. Differentiate between simple gland and compound gland?

### **3 marks**

1. Draw a diagram to show the different regions of a root?

2. Describe the corolla of Fabaceae?
3. What is meant by open and closed vascular bundles?
4. Give an example of plant part where each of them is present?
5. Draw a labeled diagram to show the structure of a neuron with myelin sheath?
6. What are the different types of muscles in man

**5 marks**

1. Describe a typical flower of solanaceae in technical terms?
2. How do the various leaf modifications help plants?
3. Bring out the salient features in the anatomy of a dicot stem?
4. Briefly describe the different types of muscular tissues?
5. How do root modify for various functions?

**UNIT III**

**Cell- the Unit of Life**

1. Differentiate between Gram positive and gram negative bacteria.(2)
2. What is the Cell theory?(2)
3. How are food vacuoles and contractile vacuoles different?(2)
4. What are the different types of chromosomes? Describe and draw its structure (2)
5. Describe the fluid mosaic model of Plasma membrane .What is its composition (3)
6. Describe the structure of a cell wall?(3)
7. Compare SER and RER with diagrams(3)
8. How are the functions of Endoplasmic reticulum, Golgi apparatus ,lysosomes associated?(3)
9. With a labelled diagram describe the structure of mitochondria.(3)
10. What are the types of plastids ? State their functions (3)
11. Draw a labelled diagram of a nucleus(3)
12. Draw a labelled diagram of a plant cell and say how it is different from animal cell?(5)

**Chapter 9**

## Biomolecules

1. How do we perform chemical analysis of a tissue to find the compounds present in a living organism?(2)
2. How do we find out the inorganic compounds in an organism (2)
3. Name four major elements in human body and their % by weight?(2)
4. Aminoacids are substituted Methanes? Explain (2)
5. What are the three major types amino acids.How many amino acids occur in Proteins on the whole?(2)
6. Name the most abundant protein in the Biosphere?What is its function?(2)
7. What are 1) Triglycerides 2) saturated fatty acids 3) Phospholipids? (3)
8. What are the Nitrogen bases in nucleotides? How do they form nucleosides?(3)
9. What are Primary and secondary metabolites? Give an example of each.(3)
10. How do we distinguish macromolecules and Microbiomolecules? How can they be separated from a cell?(3)
11. Why are lipids obtained in the acid insoluble fraction eventhough they are small molecular weight compounds?What is their approximate molecular weight? (3)
12. Name three Polymers( macromolecules )and the monomeric units of each.(3)
13. What are Inulin & Chitin composed of?(2)
14. Give three differences between DNA and RNA (3)
15. Describe the different levels of protein structure.(5)
16. What are the types of bonds found in 1) Polysaccharides 2)Nucleic acids 3)Polypeptides? How are they formed?(5)
17. Define metabolism.Explain the two pathways and two features of metabolic pathways.(5)
18. How do enzymes bring about higher rates of chemical conversions?(3)
19. Explain how different factors affect enzyme activity. What is the significance of  $V_{max}$ ?(5)
20. Describe the Watson & Crick model of DNA

## Cell cycle

1. Describe a cell cycle (1)
2. What is the duration of cell cycle in yeast and human cell in culture?(1)
3. What are the two basic phases in a cell cycle?(1)
4. What will be the number of chromosomes in onion cells in the G<sub>2</sub> phase and at metaphase.(1)
5. What is the importance of recombinase?(1)
6. What is Metaphase plate? How is it formed?(1)
7. How is the syncytium in coconut formed? Where is it found?(1)
8. What are the preparatory phase and division phase of a cell called?What is the approximate time required for each in a human cell in culture ?(2)
9. What happens during G<sub>1</sub>,S,G<sub>2</sub> and G<sub>0</sub> phase of the cell cycle .(2)
10. What two events mark the completion of Prophase?(2)
11. What are the key features of metaphase?(2)
12. Which is the best phase to view the chromosomes ? Why?(2)
13. When do chromatids separate and move to opposite poles? What follows?(2)
14. Why is meiosis significant in sexually reproducing organisms?(2)
15. Differentiate Anaphase 1 and Anaphase 2(2)
16. What is the significance of mitosis?(3)
17. Define the terms 1) Bivalents 2) Chiasmata 3) Synapsis(3)
18. What are the key features of Meiosis?(3)
19. Give one event occurring in each stage of Prophase 1?(5)
20. Bring out the differences between Mitosis and Meiosis ?(5)

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## UNIT IV

### CH: 11 TRANSPORT IN PLANTS

#### 1 Mark Questions

1. Mention two ways of absorption of water by root hairs in plants.
2. A plant cell when kept in a solution gets plasmolysed. What was the nature of

the solution?

3. Why is energy required to develop root pressure?
4. Which form of sugar is transported through phloem?
5. Casparian strip is made up of a substance impervious to water. Name this substance.

### 2 Marks Questions

6. Xylem transport is unidirectional and phloem transport is bidirectional. Give reasons.
7. How is transpiration different from guttation? Give two points.
8. A well watered potted herbaceous plant shows wilting in the afternoon of a dry sunny day. Give reasons.
9. Do different plant species growing in the same soil show the same rate of transpiration at a particular time? Justify.
- 10.(a)What are porins?  
(b)Define symport and antiport.

### 3 Marks Questions

11. What are the two kinds of interactions of water molecules that allow water to travel upwards in plants? Which other physical process helps in water transport the top of trees and how?
12. When any dry plant material/seed is kept in water, it swells up.  
(a)Name the phenomenon involved in this change.  
(b)Define this phenomenon.  
(c)Give two conditions essential for the phenomenon to occur.

13. Define- (a) translocation (b) cohesion (c) surface tension

14. What are the factors affecting the water potential? Explain

5 Marks Questions

14. Explain pressure flow hypothesis of translocation of sugar in plants.

15. How do plants absorb water? Explain transpiration pull model in this regard.

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