

SECOND MIDTERM EXAM - 2022**BIOLOGY**

MARKS : 50

CLASS : 11
TIME : 1.30 HRS

BIO-BOTANY (MARKS : 25)

5 x 1 = 5

I. Choose the best answer :

1. In Gymnosperms, the activity of sieve cells are controlled by
 - a) Nearby sieve tube members
 - b) Pholem paranchyma cells
 - c) Nucleus of companion cell
 - d) Nucleus of albuminous cells
2. Who is the father of plant Anatomy?
 - a) Esau
 - b) Nehemiah
 - c) Linnaeus
 - d) Leeuwenhock
3. The common bottle cork is a product of
 - a) Phellem
 - b) Phellogen
 - c) Xylem
 - d) Vascular cambium
4. Which is the living part of the wood?
 - a) Duramen
 - b) Heart wood
 - c) Porous wood
 - d) Sap wood
5. Stomata of a plant open due to
 - a) Influx of K⁺
 - b) Efflux of K⁺
 - c) Influx of Cl⁻
 - d) Influx of OH⁻

II. Answer any THREE of the following.

3 x 2 = 6

6. Why the cells of sclerenchyma and tracheids become dead.
7. In which season the vessels of angiosperms are larger in size. Why?
8. List out the non-photosynthetic parts of a plant the need on supply of sucrose?
9. The nitrogen is present in the atmosphere in huge amount but hyfa plants fail to utilize it. Why?
10. What are the parameters which control water potential?
11. What is sap wood?

III. Answer any THREE of the following. (Q.No.14 is compulsory)

3 x 3 = 9

12. Distinguish the Anatomy of dicot root from monocot root.
13. Continuous state of dividing tissue is called meristem. In connection to thy, what is the role of lateral meristem.
14. Write the role of nitrogenase enzyme in nitrosion fixation.
15. What is Histology?
16. What is Lenticel?
17. What is meant by diffusion?

IV. Answer any ONE of the following

1 x 5 = 5

18. a) Explain the insectivorous mode of nutrition in angiosperms (or)
- b) What are the difference between collenchyma and sclerenchyma.

BIO-ZOOLOGY (MARKS : 25)

5 x 1 = 5

I. Choose the correct Answer.

- Which of the following helps in maintaining medullary osmotic gradient via counter current exchange.
 - Juxtra medullary Nephron
 - Atrial Natri Uretic factor
 - Renin - Angiotensin - Aldosterone System
 - Vasa - Recta
- Analyse the given statements regarding the process of Urinie formation and select the Answer.

Statement I : Reduction in glomerular blood pressure and blood flow will activate juxtra glomerular cells for the rennin recreation.

Statement II : Atrial Natriuretic peptide travel to kidney and increase Na^+ reabsorption

 - Statement I, II are correct
 - Statement I is correct where as II is wrong
 - Statement I is wrong but I is correct
 - Both statement are wrong
- Which one of the following will have flagellar movement
 - Epithelial cells in human respiratory passage
 - Epithelial cells in human genital tract
 - human sperm cells in genital tract
 - WBCs in human Vascular system
- Find out the 'U' shaped bone seen at the base of buccal cavity without any joint
 - Ethmoid
 - Hyoid
 - Sphenoid
 - Vomer
- Which of the following not seen in human central neural system
 - afferent neuron
 - efferent neuron
 - inter neuroaon
 - Neuroglial cells

II. Answer any THREE of the following.

3 x 2 = 6

- What are cortical and Juxtra medullary nephrons.
- Name the bones of the Sky II
- What is uremia condition?
- What is Axon hillock?
- What is Fibrous joint where they found in human body?

III. Answer any THREE of the following. (Q.No.12 is compulsory)

3 x 3 = 9

- Classify the neurons on the basis of number of axon and Dendron.
- Draw the structure of multipolar neuron (or) L.S.Of kidney and label the parts.
- Describe the different types of muscle contraction in human body.
- One who is participating in marathon race what type of muscle fibre may help him to win the race and how?
- Why limbic system is called the emotional brain name the parts of it?

IV. Answer in detail.

1 x 5 = 5

- Explain the mechanism of muscle contraction with diagramme as per sliding filament theory (OR) Explain how kidney function is regulated.