

RS - I

**FIRST REVISION EXAMINATION - 2025****11** - Std

Time : 3.00 Hrs.

**BIOLOGY**  
Bio - Botany

--	--	--	--	--

Marks : 70

**I Answer all the questions.**

8 X 1 = 8

1. Match the columns and identify the correct option.

**Column - I****Column - II**

		A	B	C	D
1. Opposite superposed phyllotaxy	(i) Calotropis	(a) iii	iv	ii	i
2. Opposite decussate phyllotaxy	(ii) Psidium	(b) ii	i	iv	iii
3. Ternate phyllotaxy	(iii) Allamanda	(c) i	ii	iii	i
4. Whorled phyllotaxy	(iv) Nerium	(d) iv	iii	ii	i

2. The term ..... is used to name the fossil plants.

- a) Form species      b) Form genera      c) Herbarium      d) Plant Specimen

3. **Assertion :** C<sub>4</sub> plants are more advantageous than C<sub>3</sub> plants.**Reason :** Because most of the energy lost during photo respiration in C<sub>4</sub> plants.

- a) Both assertion and reason are true.      b) Assertion is true and reason is false.  
c) Reason is true and assertion is false.      d) Both assertion and reason are false.

4. Which one of the following method are used to break the seed dormancy?

- a) Scarification      b) Impaction      c) Stratification      d) All the above

5. Keeping in view the fluid mosaic model for the structure of cell membrane, which one of the following statements is correct with respect to the movement of lipids and proteins from one lipid monolayer to the other.

- a) Neither lipid nor proteins can flip - flop.  
b) Both lipid and proteins can flip - flop.  
c) While lipids can rarely flip - flop proteins cannot.  
d) While proteins can flip - flop lipids cannot.

6. The water potential of pure water is      a) Less than zero

- b) More than zero but less than one      c) More than one      d) zero

7. The β - D Glucose units in cellulose are linked together by a) N - acetyl side chains

- b) N - acetyl D - glucosamine      c) 1 → 3 linkage      d) b - (1, 4) glycosidic linkage

8. **Consider the following statements.** In spring season vascular cambium.

- i) is less active.      ii) produces a large number of xylary elements  
iii) forms vessel with wide cavities of these

- a) (i) is correct but (ii) and (iii) are not correct  
b) (i) is not correct but (ii) and (iii) are correct  
c) (i) and (ii) are correct but (iii) is not correct  
d) (i) and (ii) are not correct but (iii) is correct

**II Note : Answer any four questions.**

4 x 2 = 8

9. Give the schematic representation of cyclic photophosphorylation.

10. What is meant by programmed cell Death?

11. What are Tyloses?

12. Draw and label the parts of regions of root.

13. Define the theory of Elector - Osmosis.

14. Where will you place the plants which contain two cotyledons with cup shaped thalamus?

**III Note : Answer any three questions. (Question No. 19 is compulsory).**

3 x 3 = 9

15. Write the importance of mycorrhizae.

16. Write any three physiological effects of Auxin.

17. Draw the floral diagram and write the floral formula of clitoria ternatea.

18. Write any three differences between Photorespiration and Dark respiration.

19. (i) Write the formula for Respiratory quotient.

(ii) Respiratory quotient is infinity in anaerobic respiration why?

**IV Note : Answer all the questions.**

2 x 5 = 10

20. a) Distinguish the anatomy of dicot root from monocot root. (OR)

b) Explain nitrogen cycle.

21. a) Explain the structure of chloroplast with diagram. (OR)

b) Explain Krebs cycle or Critic acid cycle (Flow Chart only).

RS - I 11 - உயிரியல் (EM) பக்கம் -1

**BIO- ZOOLOGY****PART - I**

Maximum Marks :35

**Note : (i) Answer all the questions. (ii) Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer. 8 X 1 = 8**

- The main function of the cuboidal epithelium is  
a) Protection      b) Secretion      c) Absorption      d) Secretion and absorption
- Which of the following have an open circulatory system?  
a) Frog      b) Earthworm      c) Pigeon      d) Cockroach
- The below animal is belongs to \_\_\_\_\_  
a) Mammal      b) Bird      c) Flying rat      d) Flying reptile
- Which one of the following plasma proteins is involved in the coagulation of blood?  
a) Globulin      b) Fibrinogen      c) Albumin      d) Serum amylase
- Saliva contains \_\_\_\_\_  
a) Small quantities of nitrogenous wastes  
b) Large quantities of nitrogenous wastes      c) Hydrocarbons      d) Vitamins
- The type of movement exhibited by the macrophages are  
a) Flagellar      b) Ciliary      c) Muscular      d) Amoeboid
- Which structure in the ear converts pressure waves to action potentials?  
a) Tympanic membrane      b) Organ of Corti      c) Oval window      d) Semicircular canal

**8. Match it****Column I**

- A Gonadotropin releasing hormone (GnRH)  
B Mammotropin  
C Conarium  
D Insulin  
E Calcitriol

**Column II**

- I Bone formation  
II Hypoglycemic hormone  
III Pineal gland  
IV Stimulates milk secretion  
V Stimulates the secretion of FSH

- a) A-IV      B-V      C-II      D-III      E-I  
b) A-III      B-I      C-IV      D-II      E-V  
c) A-II      B-III      C-I      D-V      E-IV  
d) A-V      B-IV      C-III      D-II      E-I

**PART - II**

**Answer any four of the following questions: -**

4 x 2 = 8

- Which naming system was proposed by Huxley and Strickland? Write the name of an Indian house crow using that naming system.
- What characteristics are used to identify the earthworms?
- Why are villi present in the intestine and not in the stomach?
- Name the respiratory organs of flatworm, earthworm.
- How is tetany caused?
- What is the name of the crustacean in the given picture? Does it contain high or less fat?

**PART - III**

**Answer any three of the following questions. (question number 19 is compulsory).**

- What is the difference between a Zoo and a wildlife sanctuary? 3 x 3 = 9
- Why is pneumonia considered a dangerous disease?
- Draw and label the parts of a normal ECG graph
- The choroid plexus secretes cerebrospinal fluid) List the function of it.
- Write any three peculiar characters of duck

**PART - IV**

**Answer for any two questions :-**

2 x 5 = 10

- a) Comment on the functions of adrenalin. (OR)  
b) What forces promote glomerular filtration? What forces oppose them? What is meant by net filtration pressure?
- a) Describe about Glandular epithelium. (OR)  
b) List the unique features of a bird's endoskeleton.

RS - I 11 - உயிரியல் (EM) பக்கம் -2