

HTVM

HALF YEARLY EXAMINATION - 2024

XI - Std

BIOLOGY
BIO-BOTANY

Time : 3.00 Hrs

Marks : 70

SECTION - I

- I Answer all the questions. 8 x 1 = 8
- Aggregate fruit develops from
 - multicarpellary, apocarpous ovary
 - multicarpellary, syncarpous ovary
 - multicarpellary ovary
 - whole inflorescence
 - In meiosis crossing over is initiated at
 - Diplotene
 - Pachytene
 - Leptotene
 - Zygotene
 - Match the following.

	1	2	3	4	
1) Cauducous	- i) Lannea	a) ii	ii	iii	iv
2) Deciduous	- ii) Opuntia	b) i	ii	iii	iv
3) Evergreen	- iii) Fagaceae	c) ii	i	iv	iii
4) Marcescent	- iv) Mimusops	d) iv	iii	i	ii
 - In gymnosperm endosperm is formed
 - before fertilization
 - after fertilization
 - At the time of fertilization
 - along with the development of embryo
 - The element which is not remobilized?
 - Phosphorous
 - Potassium
 - Calcium
 - Nitrogen
 - Identify the correct statements.
 - Taxonomy governs the practices of the classification.
 - Systematics goverus the practices of classificatin, naming and preservation.
 - Both (i) and (ii) are correct
 - (i) is wrong and (ii) is correct
 - Both (i) and (ii) are correct
 - (i) is correct and (ii) is wrong
 - The compound which links glycolysis and Kreb's cycle is
 - succinic acid
 - Pyruvic acid
 - Acetyl COA
 - Citric acid
 - Tyloses arises from all of xylem
 - Parenchyma
 - Collenchyma
 - Sclerenchyma
 - Sclereids

SECTION - II

- II Answer any four questions. 4 x 2 = 8
- Write down the types of RNA.
 - Define : Respiratory quotient.
 - Write short notes on phyllotaxy.
 - What are the exceptions to cell theory.
 - What is actinostele? Give example.
 - Differentiate - pinus and moras.

SECTION - III

- III Answer any three questions. Q.No. 19 is compulsory. 3 x 3 = 9
- What are the importance of diffusion in plant.
 - Write any three living features of virus.
 - Differentiate : Raceme and cyme.
 - Draw and neatly label the diagram of Bicollateral vascular bundle.
 - Write the physiological effect of Auxin.

SECTION - IV

- IV Answer all the questions. 2 x 5 = 10
- Explain the insectivorous mode of nutrition in angiosperms. (OR)
 - Differentiate C₃ cycle and C₄ cycle.
 - Write the botanical description of Datura metal. (OR)
 - List out the significance of mitosis.

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BIO - ZOOLOGY

SECTION - I

I Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer. 8 x 1 = 8

1. An example for Tautonymy
a) Felis silvestris b) Naja Naja c) Ailurus fulgens d) Felis demesticus
2. Hypersecretion of growth hormone in children leads to
a) Grave's disease b) Cretinism c) Tetany d) Gigantism
3. Which of the following is correctly matched?
a) Physalia - Portugese man of war
b) Pennatula - Sea fan
c) Adamisia - Sea pen
d) Gorgonia - Sea anemone
4. Which of the following is not involved in blood clotting?
a) Fibrin b) Calcium c) Platelets d) Bilirubin
5. The tidal volume of a normal person is
a) 500 ml b) 800ml c) 1100 - 1200 ml d) 1200ml
6. Macrophages exhibit the movement of
a) Ciliary movement b) Muscular movement c) Amoeboid movement
7. Rod cells are predominant in the
a) Optic nerve b) Blind spot c) Extra forea region d) Iris
8. The limbless amphibian is
a) Rana b) Salamander c) Ichthyophis d) Hyla

SECTION - II

4 x 2 = 8

II Answer any four questions.

9. Open circulatory system and closed circulatory system - compare.
10. What are earthworm casts?
11. How Jaundice is caused? Write its symptoms.
12. Define - Thermoacidophiles.
13. Tabulate the function of brain lobes.
14. Name the respiratory organs of flatworm, Cockroach and fish.

SECTION - III

3 x 3 = 9

III Answer any three questions. Question No. 19 is compulsory.

15. Compare white adipose tissue from brown adipose tissue.
16. Mention the diseases caused by virus, fungi and bacterias in silkworm.
17. Draw the labelled sketch of kidney.
18. Mention the function of Vasopressin.
19. Aqueous humour maintains the intra - ocular pressure - Justify.

SECTION - IV

2 x 5 = 10

IV Answer all the questions.

20. List out the various functions of skeletal system. (OR)
Write in detail about economical importance of fishes.
21. Tabulate the differences between chordates and non - chordates. (OR)
Explain the origin and conduction of Heart and zBeat.

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