

# COMMON HALF YEARLY EXAMINATION - 2024

## Standard - XI

Time : 3.00 hrs

**BIOLOGY**  
Part - I Bio-Botany  
Section - I

Marks: 70

Marks: 35

Note: i) Answer all the questions.

8×1=8

ii) Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer.

- 1) In gymnosperm endosperm is formed.
  - a) At the time of fertilization
  - b) Before fertilization
  - c) After fertilization
  - d) Along with the development of embryo
- 2) \_\_\_\_\_ is the natural auxin.
  - a) IAA
  - b) NAA
  - c) 2,4-D
  - d) 2,4,5-T
- 3) Periderm consists of
  - a) Phellem only
  - b) Phellem and Phellogen only
  - c) Phelloderm only
  - d) Phellem, Phellogen and Phelloderm
- 4) Gynoecium with united carpels is termed
  - a) Apocarpous
  - b) Multicarpellary
  - c) Syncarpous
  - d) Unicarpellary
- 5) Match the following:-
 

1. Astrosclereids -	i) Aerial roots of Monste
2. Macrosclereids -	ii) Pulp of Pyrus
3. Osteosclereids -	iii) Trochodendron
4. Trichosclereids -	iv) Seed coat of Hakea
-	v) Crotalaria

  - a) 1-(ii), 2-(iv), 3-(iii), 4-(i)
  - b) 1-(iii), 2-(v), 3-(iv), 4-(i)
  - c) 1-(iii), 2-(iv), 3-(v), 4-(ii)
  - d) 1-(i), 2-(iii), 3-(iv), 4-(v)
- 6) The taxonomy which involves the similarities and dissimilarities among the immune system of different taxa is termed as
  - a) Chemotaxonomy
  - b) Molecular systematics
  - c) Serotaxonomy
  - d) Numerical taxonomy

(2)

## XI BIOLOGY

7) Statement I: Electron transport chain Complex-I consists of Fe-S and two copper.

Statement II: ATP synthesis is carried out by Complex-V of Electron transport chain.

- a) Both Statements are correct
- b) Both Statements are incorrect
- c) Statement I is correct but Statement II is incorrect
- d) Statement I is incorrect but Statement II is correct

8) Watson and Crick model of DNA double helix is \_\_\_\_\_ form

- a) A
- b) C
- c) H
- d) B

## Section - 2

Answer any four of the following:-

4×2=8

- 9) Differentiate between nucleoside and nucleotide
- 10) Mention the importance of studying growth rings.
- 11) Krebs cycle is considered as amphibolic pathway-justify.
- 12) Plant A in a nutrient medium shows whiptail disease. Plant B in a nutrient medium shows a little leaf disease. Identify mineral deficiency of Plant A and B?
- 13) Write short notes on Cyathium.
- 14) List out the non-photosynthetic parts of a plant that need a supply of sucrose.

## Section - 3

3×3=9

Answer any three of the following including Q.No.19 which is compulsory:

- 15) Write the physiological effects of Auxin
- 16) Given account of Go Phase.
- 17) How root climbers differ from stem climbers?
- 18) Differentiate between haplontic and diplontic life cycle.
- 19) Draw and label the parts of T.S. of Monocot leaf.

## Section - 4

Answer the following:-

2×5=10

- 20) a) Explain or write the flow chart of Photorespiration. [or]
- b) List out the economic importance of fungi.
- 21) a) Write any five economic importance of the family Fabaceae. [or]
- b) Draw and explain any one special type of chromosome

(3)

Part - II Bio-Zoology  
Section - I

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Marks: 35

Note: i) Answer all the questions.

8×1=8

ii) Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer.

1) Which of the following is correctly matched?

- a) Physalia - Portugese man of war  
b) Pennatula - Sea fan  
c) Adamsia - Sea pen  
d) Gorgonia - Sea anemone

2) Match the animal tissues listed in column-I to its location listed in column-II and select the correct option given below.

Column-I (Animal tissues)	Column-II (Location)
1 Cuboidal epithelium	i Lining the ureters
2 Squamous epithelium	ii Male urethra
3 Transitional epithelium	iii Surface of the ovary
4 Stratified columnar epithelium	iv Lining of heart

- a) 1-iv, 2-iii, 3-ii, 4-i  
b) 1-i, 2-iii, 3-ii, 4-iv  
c) 1-iii, 2-iv, 3-i, 4-ii  
d) 1-ii, 2-i, 3-iv, 4-iii

3) Read the statements 1 and 2 and select the correct option

Statement 1: Oxygen is poorly soluble in water, so only 3% of the oxygen is transported in the dissolved form.

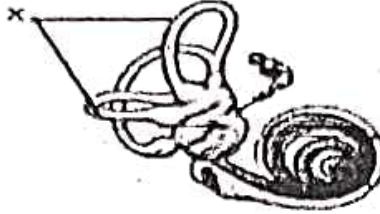
Statement 2: Each haemoglobin carries maximum of four molecules of oxygen.

- a) Statement 1 is correct and Statement 2 is wrong  
b) Statement 2 is correct and Statement 1 is wrong  
c) Both the Statements 1 and 2 are correct  
d) Both the Statements 1 and 2 are wrong
- 4) At the venous end of the capillary bed, the osmotic pressure is
- a) Greater than the hydrostatic pressure  
b) Result in net outflow of fluids.  
c) Results in net absorption of fluids  
d) No change occurs.
- 5) The principle nitrogenous excretory compound in humans is synthesised
- a) In the liver but eliminated mostly through kidneys  
b) In liver and also eliminated by the same through bile  
c) In kidneys but eliminated mostly through liver  
d) In kidneys as well as eliminated by kidney

(4)

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- 6) The type of movement exhibits by the macrophages are  
 a) Flagellar      b) Ciliary      c) Muscular      d) Amoeboid
- 7) The primary function of the structure labelled as 'X' in the given figure is



- a) Movement of head      b) Hearing      c) Position of head      d) Vision
- 8) Which one of the following is not related to vermiculture?  
 i) Maintains soil fertility  
 ii) Breakdown of inorganic matter  
 iii) Gives porosity, aeration and moisture holding capacity  
 iv) Degradation of non-biodegradable solid wastes  
 a) i and ii are correct      b) iii and iv are correct  
 c) ii and iv are not correct      d) i and iii are not correct

**Section - 2**

Answer any four of the followings:-

4×2=8

- 9) What is the role of Charles Darwin in relation to concept of species?  
 10) List the functions of air bladder in fishes.  
 11) How do you distinguish male frog from female frog?  
 12) How oxygenhaemoglobin dissociation curve is obtain?  
 13) Draw and labelled structure of human kidney.  
 ) Specify the symptoms of acromegaly

**Section - 3**

Answer any three of the following including Q.No.19 is compulsory:

3×3=9

- 15) List out the three characters of bony fishes  
 16) Bile juice contains no digestive enzymes, yet it is important for digestion. Why?  
 17) Write the functions of skeletal system.  
 18) What are the advantages of Artificial insemination.  
 19) Pineal gland is an Endocrine gland. Write its role.

**Section - 4**

Answer in Details:-

2×5=10

- 20) a) Describe the structure of the Digestive system of . . . . .  
 b) Describe the refractive errors of Eye [or]
- 21) a) Draw the Schematic representation of blood coagulation in injured blood vessel. [or]  
 b) Describe the Multiple ovulation embryo transfer technology. (MOET)

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