

**A****FIRST REVISION TEST - 2022**Register  
Number**XI - BIOLOGY**

Time Allowed : 3.00 Hours

Maximum Marks : 70

- INSTRUCTIONS :** 1. Check the question paper for fairness of printing.  
If there is any lack of fairness, inform the Hall Supervisor immediately.  
2. Use **Blue** or **Black** ink to write and underline and **Pencil** to draw diagrams.

**NOTE :**

Candidate should answer Part - I (Bio-Botany) &amp; Part - II (Bio - Zoology) in separate answer - books.

**PART-I (BIO - BOTANY)****(MARKS :35)****SECTION - 1**

- 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. (8×1=8)**

- Phylogenetic classification is the most favoured classification because it reflects
  - Comparative anatomy
  - Number of flowers produced
  - Comparative cytology
  - Evolutionary relationship
- In meiosis, crossing over is initiated at \_\_\_\_\_
  - Diplojene
  - Pachytene
  - Leptotene
  - Zygotene
- Proteins make up \_\_\_\_\_ of total dry mass of a cell
  - 1/3
  - 2/3
  - 1/4
  - 2/5
- The common light microscope which has many lenses are called as \_\_\_\_\_
  - Compound microscope
  - Bright field microscope
  - Electron microscope
  - Transmission electron microscope
- Flower is said to be \_\_\_\_\_ when it contains all four whorls
  - Complete
  - Incomplete
  - Bisexual
  - Unisexual
- The correct statement regarding Blue green algae is \_\_\_\_\_
  - lack of motile structures
  - presence of cellulose in cell wall
  - absence of mucilage around the thallus
  - presence of floridean starch
- Which of the following represents gametophytic generation in pteridophytes?
  - Prothallus
  - Thallus
  - Cone
  - Rhizophore
- The leaf becomes modified into a pitcher in \_\_\_\_\_
  - Utricularia
  - Bryophyllum
  - Nepenthes
  - Agave

**SECTION - II****Note : Answer any four questions.****(4×2=8)**

- Give the merits of five kingdom classification.
- What is plectostele? Give an example.
- What is Phyllotaxy?
- Give the technical terms for the following:
  - A sterile stamen
  - Stamens are united in one bunch
- Write any two functions of cell wall.
- What is Synapsis?

**SECTION - III****Note : Answer any three questions. Question Number 19 is compulsory. (3×3=9)**

- Compare sympodial branching with monopodial branching.
- Draw the floral diagram of Hibiscus rosa-sinensis and add floral formula.
- Describe the structure of polytene chromosomes with a suitable diagram.
- Differentiate between Karyokinesis and Cytokinesis.
- Write the properties of Enzyme.

**SECTION - IV****Answer all the questions.****(2×5=10)**

- Discuss on five kingdom classification. **(OR)**
  - Give the floral characters of Datura metel.
- Write about Pachytene and Diplotene of prophase I. **(OR)**
  - List out any ten general characteristic features of Bryophytes.

**PART-II (BIO - ZOOLOGY)****(MARKS : 35)****SECTION - I**

**Note :** i) **Answer all the questions.** (8x1=8)  
 ii) **Choose the most suitable answer from the given four alternatives and write the option code and the corresponding answer.**

- Assertion(A) :** Extremophiles are euakaryotes, capable of growing in extreme conditions like hot springs.  
**Reason (R) :** They are able to get oxygen from hot water  
 a) Both (A) and (R) true, (R) explains (A)  
 b) Both (A) and (R) true, but (R) does not explain (A)  
 c) (A) is true but (R) is false  
 d) Both (A) and (R) are false
- Find out the true statement from the following:  
 a) Round worms are acoelomates  
 b) Earthworms are pseudocoelomates  
 c) Arthropods are eucoelomates  
 d) Molluscs are enterocoelomates
- Which one of the following groups, is having bioluminescence ability?  
 a) Aschelminthes b) Platyhelminthes  
 c) Annelids d) Ctenophores
- The ciliated epithelium lines the  
 a) skin b) digestive tract  
 c) gall bladder d) trachea
- Sexually, earthworms are  
 a) Sexes are separate  
 b) Hermaphroditic but not self-fertilizing  
 c) Hermaphroditic and self-fertilizing  
 d) Parthenogenic
- Which one is incorrectly matched?  
 a) Pepsin-stomach b) Renin-liver  
 c) Trypsin-intestine d) Ptyalin-mouth
- Which one of the following digested foods, is absorbed from the intestine by facilitated transport method?  
 a) Fatty acids b) Fructose  
 c) Water d) Vitamins
- What type of risk, scuba divers are facing?  
 a) nitrogen narcosis  
 b) emphysema  
 c) bronchitis  
 d) allergy

**SECTION - II**

**Note: Answer any four of the following questions.**

**(4x2=8)**

- Define Species.
- What is metamerism?
- Differentiate white adipose tissue from brown adipose tissue.
- Write the types of respiration seen in frog.
- Find out BMI for an adult, whose height is 173 cm and his weight is 79kg.
- What is methaemoglobin?

**SECTION - III**

**Note : Answer any three of the following questions. Question no. 19 is compulsory.**

**(3x3=9)**

- Differentiate probiotics from pathogenic bacteria.
- Write a note on metagenesis of cnidarians.
- What are the components of blood of frog?
- Bile juice contains no digestive enzymes, yet it is important for digestion. Why?
- RBCs alone carry O<sub>2</sub> from lungs to tissues. But RBCs alone do not carry the total amount of CO<sub>2</sub> produced from tissues to lungs. Explain. Why?

**SECTION - IV**

**Answer all the questions. Draw diagrams wherever necessary.**

**(2x5=10)**

- a. List the characteristic features of the phylum : Arthropoda. **(OR)**  
 b. Explain the male reproductive system of frog with the help of diagram.
- a. Explain the role of succus entericus in digestion. **(OR)**  
 b. Explain the mechanisms of inspiration and expiration.