

**Standard 11****BIOLOGY**

Time: 1.30 Hrs.

Marks: 50

PART - I [BIO-BOTANY]

Marks: 25

Section - I**Answer all the questions:****5×1=5**

- 1) The correct statement regarding Blue green algae is
 - a) presence of cellulose in cell wall
 - b) absence of mucilage around the thallus
 - c) lack of motile structures
 - d) presence of floridian starch
- 2) Which of the following represents gametophytic generation in pteridophytes?
 - a) Cone
 - b) Thallus
 - c) Rhizophore
 - d) Prothallus
- 3) Bryophyllum, Dioscorea are example for.
 - a) Foliar bud, Apical bud
 - b) Foliar bud, Cauline bud
 - c) Foliar bud, Adventitious bud
 - d) Cauline bud, Adventitious bud
- 4) **Match and choose the correct sequence:**
 1. Green sulphur bacteria - i) Chromatium
 2. Saprophytic bacteria - ii) Ferrobacillus
 3. Iron bacteria - iii) Chlorobium
 4. Purple sulphur bacteria - iv) Bacillus mycoides
 - a) 1-iii, 2-iv, 3-ii, 4-i
 - b) 1-iv, 2-iii, 3-ii, 4-i
 - c) 1-iv, 2-iii, 3-ii, 4-i
 - d) 1-iv, 2-iii, 3-i, 4-ii
- 5) **Choose the wrong pair:**
 - a) Runner - Oxalis
 - b) Phylloclade - Phyllocactus
 - c) Offset - Chrysanthemum
 - d) Corm - Colacasia

Section - II**Answer ANY THREE of the following:****3×2=6**

- 6) How root climbers differ from stem climbers?
- 7) What do you infer from the term "pycnoxylic"?
- 8) What are stromatolites?
- 9) Why are Bryophytes called non-vascular cryptogams?
- 10) Write the similarities and differences between phylloclade and cladode.

Section - III**Answer ANY THREE of the following:****3×3=9**

- 11) Write the merits of five kingdom classification.
- 12) Mention any three characters shared by gymnosperms and angiosperms.
- 13) What are the primary functions of leaf?
- 14) Distinguish between Eusporangiate and Leptosporangiate.
- 15) Write any three general characters of Lichens.

Section - IV**Answer in detail:****1×5=5**

- 16) a) What is protosteles? Explain the types.

(OR)

- b) Explain Taproot modifications.

PART - II [BIO-ZOOLOGY]

Marks: 25

Section - I

Note: i) Answer all the questions.

5×1=5

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

- 1) Prevention of substances from leaking across the tissue is provided by
 - a) Tight junction
 - b) Adhering junction
 - c) Gap junction
 - d) Elastic junction
- 2) Which of the following is correctly matched?
 - a) Physalia - Portugese men of war
 - b) Pennetula - Sea fan
 - c) Adamsia - Sea pen
 - d) Gorgonia - Sea anemone
- 3) Cladogram considers the following characters
 - a) Physiological and Biochemical
 - b) Evolutionary and Phylogenetic
 - c) Taxnomic and Systemetic
 - d) None of the above
- 4) What type of fibres are found in connective tissue matrix?
 - a) Collagen
 - b) Arcoler
 - c) Cartilage
 - d) Tubuler
- 5) **Match the following columns and select the correct option:**

Column I**Column II**

- | | | |
|------------------------|---|------------------------|
| A) Pila | - | i) Devil fish |
| B) Dentalium | - | ii) Chiton |
| C) Chaetopleura | - | iii) Apple snail |
| D) Octopus | - | iv) Tusk shell |
| a) A-ii B-i C-iii D-iv | | b) A-iii B-iv C-ii D-i |
| c) A-ii B-iv C-i D-iii | | d) A-i B-ii C-iii D-iv |

Section - II

Note: Answer any three of the following questions.

3×2=6

- 6) What are flame cells?
- 7) Differentiate between Probiotics and Pathogenic bacteria.
- 8) Same epithelia are pseudostratified? What does this mean?
- 9) Why are spongin and spicules important to a sponge?
- 10) Why mule is sterile in nature?

Section - III

Note: Answer any three of the following questions.

3×3=9

- 11) Why blood considered as a typical connective tissue?
- 12) What is the role of Charles Darwing in relation to concept of species?
- 13) List three features that characterise bony fishes.
- 14) Differentiate white adipose tissue from brown adipose tissue.
- 15) List the functions of air bladder in fishes.

Section - IV

Note: Answer the following questions.

1×5=5

- 16) Comparison of chordates and non-chordates.

(OR)

Write about the classical taxonomical tools.