INDIAN SCHOOL SOHAR **No of printed pages- 2**

UNIT TEST – 1 (2024 -25)

CLASS: XI **SUBJECT- BIOLOGY** **MAX MARKS: 20**

DATE: 22/05/2024 **SET- 2** **TIME: 40 mins**

General Instructions :

(i) The question paper has five sections and 10 questions. All questions are compulsory.

(ii) Section - A has 6 questions of 1 mark each; Section – B has one question of 2 marks; Section – C has one question of 3 marks; Section – D has one case-based question of 4 marks; and Section E has one question of 5 marks.

(iii) There is no overall choice. However, internal choices have been provided in some questions. A student has to attempt only one of the alternatives in such questions.

(iv) Wherever necessary, neat and properly labeled diagrams should be drawn.

SECTION- A

1. Which of the following taxon will have maximum number of common characteristics? 1

(a) Phylum (b) Class (c) Family (d) Order

2. International Code of Zoological Nomenclature is applied to 1

(a) Plants (b) Cyanobacteria (c) Virus (d) Animals

3. Which of the following Genera is not included in Family Solanaceae ? 1

(a) *Petunia* *(b) Mangifera* *(c) Datura* *(d) Solanum*

4. Which one of the following is not the characteristic feature of mosses? 1

(a) Plant body is a gametophyte

(b) Presence of two types of spores for asexual reproduction

(c) Spores germinate to produce protonema stage

(d) Sporophyte is formed after sexual reproduction

Questions 5 and 6 consist of two statements- Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

A. Both A and R are true and R is the correct explanation of A.

B. Both A and R are true but R is not the correct explanation of A.

C. A is true but R is false.

D. A is false but R is true

5- Assertion: Viruses have not been assigned any place in the classification. 1

Reason: Viruses have an inert crystalline structure outside the living cell.

6- Assertion: Scientific names are followed uniformly worldwide. 1

Reason: Scientific names are based on universally accepted principles and criteria.

SECTION – B

7- Study the table given below and complete the blanks A to D: 2

Red Algae	**Green Algae**	**Brown Algae**
Rhodophyceae	Chlorophyceae	A
B	Starch	Mannitol, Laminarin
C	D	Cell wall made of Cellulose and algin

SECTION – C

8 - The figure given below represents a member of Kingdom Protista. 3

(a) Identify the organism and mention the protists group it belongs to.
(b) Name the surrounding layer that makes it flexible. What is it composed of?
(c) It behaves both as a plant and as an animal. Justify.

SECTION - D

9- Read the following and answer the questions that follow: 4

The gymnosperms are plants that include medium-sized trees or tall trees and shrubs. The seeds that develop post-fertilisation, are not covered, i.e., are naked. One of the gymnosperms, the giant redwood tree Sequoia is one of the tallest tree species. The roots are generally tap roots. Roots in some genera have fungal association while in others, roots are specialized. The leaves may be simple or compound. In Cycas, the pinnate leaves persist for a few years. The leaves in gymnosperms are well-adapted to withstand extremes of temperature, humidity, and wind. Gymnosperms are considered heterosporous plants.

a) How do gymnosperms differ from the angiosperms with respect to their seeds?
b) Why are gymnosperms termed as heterosporous plants?
c) Explain the terms mycorrhiza and coralloid roots and state their significance.

OR

c) How leaves in gymnosperms are adapted to withstand the extremes of temperature? Mention any two such adaptations.

SECTION – E

10- a) Give a suitable term for the virus that infects bacteria. Draw a neat diagram of the same and label any two parts. 5
b) Explain the terms phycobiont and mycobionts with reference to lichens.

OR

a) Name the specialized cells meant for nitrogen fixation in cyanobacteria. Draw a neat diagram of a cyanobacteria that forms bloom in water bodies and label any two parts.
b) Mention the criteria followed by R. H. Whittaker for classifying organisms into five kingdoms.

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