

HOLIDAY HOME WORK

SUBJECT – BIOLOGY

CLASS – XI

Answer these questions in Biology Fair Notebook.

SECTION-A (1 Mark)

Answer the following multiple choice questions:

1. Scientific name of plants are given by

- (a) International code for Botanical nomenclature
- (b) International code for biological plants
- (c) Indian code for Botanical nomenclature
- (d) International code for zoological nomenclature

2. As we go from species to kingdom in a taxonomic hierarchy, the number of common characteristics

- a. Will decrease
- b. Will increase
- c. Remain same
- d. May increase or decrease

3. Difference between Virus and Viroid is

- a. Absence of protein coat in viroid but present in virus
- b. Presence of low molecular weight RNA in virus but absent in viroid
- c. Both a and b
- d. None of the above

4. Rhodophyceae is called red algae because of the pigment

- (a) Fucoxanthin
- (b) Phycoerythrin
- (c) Carotenoids
- (d) Chlorophyll c

5. Isogamous condition with non-flagellated gametes is found in

- a. *Chlamydomonas*
- b. *Volvox*
- c. *Spirogyra*
- d. *Fucus*

6. Protonema is

- a. Haploid and is found in mosses
- b. Diploid and is found in liverworts
- c. Diploid and is found in pteridophytes
- d. Haploid and is found in pteridophytes

7. A group of plants and animals with similar traits of any rank is

- a. Taxon

- b. Species
- c. Genus
- d. Order

8. **Bentham and Hooker gave which system of classification?**

- a. Numerical
- b. Phylogenetic
- c. Artificial
- d. Natural

9. **Genes of Tobacco Mosaic Virus are _____.**

- a. Double-stranded RNA
- b. Single-stranded RNA
- c. Double-stranded DNA
- d. Proteinaceous

10. **Pick the mismatched pair**

- a. Cycas – Dioecious
- b. Equisetum – Homosporous
- c. Salvinia – Heterosporous
- d. Pinus – Dioecious

Answer the following Assertion/Reason questions:

Two Statements are given one labelled as assertion A and the other labelled as reason

R. Select the correct answer to these questions from the option a b c d as given below

- a) Both A and R are true and R is the correct explanation of A.
- b) A and R are true but R is not the correct explanation of A.
- c) A is true r is wrong
- d) A is wrong R is true

11. A: Viroids are not included in the five kingdom system.

R: They are non-cellular.

12. Assertion: Kingdom-Protista forms a link between monerans and and the other organism like plants, animal and fungi.

Reason: Protists reproduce sexually and asexually by a process involving cell fusion and zygote formation.

13. Assertion: Archegonium is the female sex organ in bryophytes.

Reason: Algae also possess the archegonium.

14. Assertion: In mosses, spores are contained within the capsule.

Reason: The spores are formed by mitotic division in mosses.

15. Assertion : Members of phaeophyceae vary in colour from olive green to various shades of brown

Reason : Phaeophyceae possess chlorophyll a, c, carotenoids and xanthophylls.

SECTION-B (2 Marks)

Answer the following short answer questions:

16. What are the steps basic to the process of taxonomy?
17. How is the five-kingdom classification advantageous over the two kingdom classification?
18. What is diatomaceous earth? What is Red tides?
19. Explain asexual and sexual mode of reproduction in Liverworts.
20. Explain the development of archegonia and how does seed formation takes place in the megasporangium in Gymnosperms?
21. What is heterospory? Briefly comment on its significance. Give two examples.

SECTION-C (3 Marks)

Answer the following long questions:

22. Differentiate between the Liverworts and Mosses. (Write 5 points and a diagram)
23. Differentiate between the Red algae and brown algae. (Write 5 points and a diagram)
24. Differentiate between the Bryophytes and Pteridophytes. (Write 5 points and a diagram)
25. Differentiate between the Gymnosperms and Pteridophytes. (Write 5 points and a diagram)

Draw diagrams and write salient features in Biology Lab Manual.

1. Explain the parts of a compound microscope with diagram. Also mention ways of maintenance.
2. **Write five salient features and draw well-labelled diagrams of each of the following –**
Bacteria, Oscillatoria, Spirogyra, Rhizopus, mushroom, yeast, liverwort, moss, fern, pine, one monocotyledonous plant, one dicotyledonous plant and one lichen.
3. **Write five salient features and draw well-labelled diagrams of each of the following –**
Amoeba, Hydra, liver fluke, Ascaris, leech, earthworm, prawn, silkworm, honey bee, snail, starfish, shark, rohu, frog, lizard, pigeon and rabbit.

Revision work

1. Device chapter 1, 2 and 3 for the upcoming UT in July.
2. Explore chapter 4 from NCERT, Animal Planet channel and Discovery channel- write your observations and correlate it with the chapter Animal Kingdom.