

SECTION A  
Multiple Choice Questions

[1X 10=10]

1. Natural system of classification was based upon all of the given, except

- (a) structural embryology      (b) phytochemistry      (c) anatomy      (d) chromosome no.

2. The members of phaeophyceae are primarily found in

- (a) fresh water      (b) marine water      (c) terrestrial habitat      (d) marshy area

3. Identify the red algae species among the following ?

- (a) *Ectocarpus*, *Dictyota*  
(b) *Gelidium*, *Porphyra*  
(c) *Sargassum*, *Ectocarpus*  
(d) *Laminaria*, *Fucus*

4. Read the following statements and select correct option.

**Statement A** : The gametophyte of bryophytes are multicellular.

**Statement B** : In the absence of vascular tissues in the gametophyte, all parts of it are able to absorb water directly from moist habitat.

- (a) Both statement A and B are true.  
(b) Both statement A and B are false.  
(c) Statement A is true but statement B is false.  
(d) Statement A is false but statement B is true.

5. In which of the following species stems are branched ?

- (a) *Pinus*, *Cycas*      (b) *Pinus*, *Cedrus*      (c) *Cedrus*, *Riccia*      (d) *Cedrus*, *Salvinia*

6. **Assertion** : In gymnosperms, ovules are enclosed by an ovary wall & remain exposed after fertilisation.

**Reason** : Seeds are naked & are developed after fertilisation.

- (a) Both assertion and reason are true, and reason is the correct explanation of assertion.  
(b) Both assertion and reason are true, but reason is not the correct explanation of assertion.  
(c) Assertion is true but reason is false.  
(d) Assertion is false but reason is true.

7. Gemmae are small, disc-like structures that are a form of asexual reproduction in

- (1) *Funaria*      (2) *Marchantia*  
(3) Fern      (4) *Sphagnum*

8. In mosses sporophyte is differentiated into

- (1) seta, cone, capsule  
(2) foot, elaters, seta  
(3) foot, seta, capsule  
(4) protonema, foot, capsule



9. Heterospory is the production of \_\_\_\_ & is seen in \_\_\_\_.

- (1)sexual & asexual spores ; *Salvinia* (2) large & small spores ; *Salvinia*  
(3)haploid & diploid spores ; *Equisetum* (4) diploid & tetraploid spores ; *Adiantum*

10. Which of the following plant groups lack true roots, stem & leaves ?

- (1) Angiosperm (2) Gymnosperm (3) Pteridophytes (4) Bryophytes

SECTION – B

[ 2X3= 6]

11. What is Numerical taxonomy ?

12. Define Thallus . In which plant groups thallus is their main body ?

13. In which class of algae motile stage is absent? What is the biochemical composition of its cell wall ?

SECTION-C

[ 3X 3= 9]

14. Differentiate bw Artificial , Natural & Phylogenetic system of classification.

15. Write a short note on Mosses emphasising their gametophytic structures .

16. Give economic importance of Algae & support your answer with suitable examples.

SECTION-D

[5X1= 5]

17. Represent the general life cycle of pteridophyte in a cyclic/ flow chart form. [only represent don't write explanation ]

CASE STUDY

[1X5= 5]

18. Gymnosperm & Angiosperm are seed-bearing plants. Yet, they are put under 2 different divisions of the Kingdom- Plantae.

(i) Write the 3 major difference bw the 2 divisions. [ 3 marks ]

(ii) Draw the special reproductive structure in Angiosperm labelling its parts. [ 1 marks ]

(iii) Name the smallest Angiosperm & Largest Gymnosperm.[ 1 marks ]



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