

Class: XI
Subject: Biology
Topic: Plant kingdom
No. of Questions: 25

- Q1. What is the basis of classification of algae?
- Q2. When and where does reduction division take place in the life cycle of a liverwort, a moss, a fern, a gymnosperm and an angiosperm?
- Q3. Name three of plants that bear archegonia. Briefly describe the life cycle of any one of them.
- Q4. Mention the ploidy of the following : protonemal cell of a moss; primary endosperm nucleus in dicots; leaf cell of a moss; prothallus cell of a fern; gemma cell in Marchantia, meristem cell of monocot; ovum of a liverwort and zygote of a fern.
- Q5. Write a note on economic importance of algae and gymnosperm.
- Q6. Both gymnosperms and angiosperms bear seeds. But, then why are they classified separately?
- Q7. What is heterospory? Briefly comment on its significance. Give two examples.
- Q8. Explain briefly the following terms with suitable example:
- (i) Protonema
 - (ii) Antheridium
 - (iii) Archegonium
 - (iv) Diplontic
 - (v) Sporophyll
 - (vi) Isogamy.
- Q9. Differentiate between the following:
- (i) Red algae and brown algae
 - (ii) Liverworts and moss
 - (iii) Homosporous and Heterosporous pteridophytes
 - (iv) Syngamy and triple fusion.
- Q10. Give the major differences between dicotyledons and monocotyledons.
- Q11. How would you distinguish monocots from dicots?

Q12. Match the following (Column I with column II)

Column I

- (a) Chlamydomonas
- (b) Cycas
- (c) Selaginella
- (d) Sphagnum

Column II

- (i) Moss
- (ii) Pteridophyte
- (iii) Algae
- (iv) Gymnosperm

Q13. Describe the important characteristics of gymnosperms.

Q14. Give one example each of the following:

- (i) A red alga that grows in fresh water habitats.
- (ii) A liverwort.
- (iii) A pteridophyte commonly called the walking fern.
- (iv) A gymnosperm which is considered as a living fossil.

Q15. Name any three series belonging to class: Monocotyledous in Benthan and Hooker's system of classification.

Q16. Name the different pigments found in Algae

Q17. What are rhizoids and what is their function?

Q18. Which group of plants is responsible for maximum fixation of carbon dioxide on earth? Explain how they increase the level of dissolved oxygen in their immediate environment.

Q19. Name the four divisions of seedless vascular plants and give one example of each. Which plant is considered as earliest vascular land plant?

Q20. Name the first angiosperm and give its approximate age.

Q21. Which one of the following is heterosporous?

- a) Adiantum
- b) Equisetum
- c) Dryopteris
- d) Salvinia

Q22. Yellow green pigment is found in

- a) Xanthophyta
- b) Chlorophyta
- c) Phaeophyta
- d) Rhodophyta

- Q23. The gametophyte is not an independent free living generation in
- Polytrichum
 - Adiantum
 - Marchantia
 - Pinus
- Q24. Identify the pair that exhibits cercinate venation
- Nephrolepsis and Cycas
 - Riccia and Nephrolepsis
 - Psilotum and Riccia
 - Equisetum and Selaginella
- Q25. Which one of the following pairs is wrongly matched?
- Ginkgo – Archegonia
 - Salvinia – Prothallus
 - Viroids – RNA
 - Mustard – Synergids