Plant Kingdom

CHAPTER-3

EXERCISES

1. What is the basis of classification of algae?
2. When and where does reduction division take place in the life cycle of a liverwort, a moss, a fern, a gymnosperm and an angiosperm?
3. Name three groups of plants that bear archegonia. Briefly describe the life cycle of any one of them.
4. Mention the ploidy of the following: protonemal cell of a moss; primary endosperm nucleus in dicot, leaf cell of a moss; prothallus cell of a ferm; gemma cell in *Marchantia*; meristem cell of monocot, ovum of a liverwort, and zygote of a fern.
5. Write a note on economic importance of algae and gymnosperms.
6. Both gymnosperms and angiosperms bear seeds, then why are they classified separately?
7. What is heterospory? Briefly comment on its significance. Give two examples.
8. Explain briefly the following terms with suitable examples:-
   (i) protonema
   (ii) antheridium
   (iii) archegonium
   (iv) diplontic
   (v) sporophyll
   (vi) isogamy
9. Differentiate between the following:-
   (i) red algae and brown algae
   (ii) liverworts and moss
   (iii) homosporous and heterosporous pteridophyte
   (iv) syngamy and triple fusion
10. How would you distinguish monocots from dicots?
11. Match the followings (column I with column II)

Column I	Column II
(a) *Chlamydomonas*	(i) Moss
(b) *Cycas*	(ii) Pteridophyte
(c) *Selaginella*	(iii) Algae
(d) *Sphagnum*	(iv) Gymnosperm

12. Describe the important characteristics of gymnosperms.