Chapter- 03

PLANT KINGDOM

VERY SHORT ANSWER QUESTIONS (1 mark)

01. What do you mean by Numerical Taxonomy?
02. What are the features taken into consideration for chemotaxonomy?
03. How algae reproduce vegetatively?
04. How algae reproduce asexually?
05. Name two species of algae that are used as food.
06. Name two algae from which agar is prepared.
07. Write down two species of algae that are used as food for space travellers.
08. Name the pigment present in Chlorophyceae.
09. Name the pigment present in Phaeophyceae.
10. Name the pigment present in Rhodophyceae.

SHORT ANSWER TYPE QUESTIONS (2 marks)

11. Role of algae in the ecosystem and environment?
12. What is carageen and how is it used commercially?
13. What is algin and how is it used commercially?
14. Write the economic importance of Agar.
15. What is meant by the protonema stage?
16. What is mycorrhiza? Give an example.
17. How gametes are developed in Bryophytes?

SHORT ANSWER TYPE QUESTIONS (3 marks)

18. State the thalloid structure of class Phaeophyceae.
19. Differentiate between monocotyledon and dicotyledon.
20. Mention the two stages of mosses and briefly discuss them.
21. State the types of reproduction in algae and discuss them briefly.
22. Give a brief account of Bryophytes economic and environmental importance.
23. How pollen grains are formed in gymnosperms?

24. Explain the process of the development of archegonia in Riccia.

LONG ANSWER TYPE QUESTIONS (5 marks)

25. What is the dominant phase of pteridophytes and how does it develope?
26. Expand the term PEN and write its ploidy number. How it is formed?
27. What do you mean by the alternation of a generation? Discuss different types of it with examples.

HOTS/MODEL QUESTIONS:

01. Which gymnosperms provide each of the following?

(a) Taxol (b) canada balsam

(c) Ephedrin (d) Sago

02. What is meant by the haplo-diplontic life cycle?

03. Explain pollination in gymnosperms.

04. How would you differentiate diplontic and haplontic life cycle?

05. What are coralloid roots? Where do you find them?

06. Why Cycas is called a living fossil?

07. Enlist xerophytic adaptations of gymnosperms.

08. What do you mean by a precursor of seed habit?

09. Name an alga that adopts a haplo-diplontic and diplontic life cycle.

10. Why is a bryophyte called amphibian of the plant kingdom?

11. Both gymnosperms and angiosperms bear seeds. Still, they are classified separately. Justify.

12. Expand PEC. What is its function?

13. With the help of diagrams, explain the different parts of a bisexual flower.

14. What are the disadvantages of an artificial system of classification?

15. Discuss the differences between bryophytes and pteridophytes.

16. Enlist the differences between Gymnosperm and pteridophytes.

17. With the help of a suitable diagram, explain 7-celled 8 nucleated embryo sac in angiosperm.

18. Explain the nature of sporophylls in pteridophytes.

19. How does an angiosperm support pollinator to carry out pollination in contrast to gymnosperm?

20. What are pyrenoids?

21. What are kelps?

22. What is the shape and structure of gametes in class Phaeophyceae?

23. What do you mean by floridean starch?

24. Who are the Reptiles of the plant kingdom?

25. Name the male and female sex organs of bryophytes.

26. What is a sporophyte?

27. How bryophytes can be used as fuel?

28. Define the term microphyll and macrophyll.

29. What do you mean by strobilus?

30. Write a note on the asexual reproduction of liverworts.

31. Define the term heterospory and how it helps the pteridophytes. Give two examples of it.

32. What do you mean by pollination? How the male gametes enter into female gametophyte and how it fertilizes the female gametes?

33. Discuss natural, artificial, and phylogenetic classification systems with examples.

34. Explain the life cycle of angiosperms.