PLANT KINGDOM

1. Which group does not produce embryo ?

(1) Algae (2) Moss

(3) Liverworts (4) Club moss

2. Which group of plants conduct water and minerals by xylem tracheids ?

(1) Algae (2) Mosses

(3) Liverworts (4) Gymnosperms

3. In which group the male and female sex organs are called antheridia and archegonia, respectively ?

(1) Blue green algae (2) Eubacteria

(3) Protista (4) Bryophyta

4. The group of plants, in which body is differentiated into root, stem and leaf :-

(1) Chlorophyceae (2) Phaeophyceae

(3) Lycopsida (4) Hepaticopsida

5. Which is not an example of moss plants ?

(1) *Funaria* (2) *Polytrichum*

(3) *Sphagnum* (4) *Colletotrichum*

6. Strobilli or cones are not formed in :-

(1) Lycopods (2) Sphenopsids

(3) Conifers (4) Ferns

7. In which group of plants both male and female gametophytes do not have an independent free living existence ?

(1) Bryophytes (2) Pteridophytes

(3) Gymnosperms (4) Both 1 and 2

8. Sporophylls are arranged spirally along an axis, when they aggregate, to form :-

(1) Strobillus (2) Flowers

(3) Inflorescence (4) Thalamus

9. The gametophyte of pteridophytes require to grow :-

(1) Warm, damp, and shady place

(2) Cool, damp, and shady place

(3) Warm, dry, and shady place

(4) Cool, dry, and place of well sunshine

10. Zygotic meiosis occurs in :-

(1) *Pinus* (2) *Funaria*

(3) *Pteridium* (4) *Chara*

11. The megaspore mother cell in gymnosperms is differentiated from :-

(1) Integument (2) Embryosac

(3) Nucellus (4) Endosperm

12. Which is not common in *Chlorella* and *Spirulina* ?

(1) both are unicellular

(2) both are rich in protein

(3) both are used as food supplement

(4) both are prokaryotes

13. Majority of red algae tend to grow in :-

(1) Marine and warmer areas

(2) Marine and colder areas

(3) Freshwater and warmer areas

(4) Brackish water and colder areas

14. Pyriform, biflagellate gametes are produced in:-

(1) *Ectocarpus*, *Polysiphonia*

(2) *Ectocarpus*, *Laminaria*

(3) *Ulothrix*, *Polysiphonia*

(4) *Fucus*, *Porphyra*

15. Autotrophic aquatic organisms which usually reproduce vegetatively by fragmentation, asexual by non motile spores and perform sexual reproduction also by the non-motile gametes. These organisms are :-

(1) *Polysiphonia, Porphyra, Gracilaria*

(2) *Ectocarpus, Dictyota, Laminaria*

(3) *Laminaria, Fucus, Sargassum*

(4) *Volvox, Chara, Spirogyra*

16. Which is not true about agar ?

(1) It is obtained from red alga

(2) It is used to grow (culture) microbes

(3) It is used to make ice-cream and gellies

(4) It is used as food supplement even by space travellers

17. At present most acceptable system of classification is :-

(1) Artificial system (2) Natural system

(3) Phylogenetic system (4) Practical system

18. Fill in the blanks a, b, c and d by observing the characters given in the table and choose the correct answer from the following options :-

Plant group	Main body	Fertilisation	Vascular tissue	Female sex organ
Bryophyta	Gameto-phyte	By Zoido-gamy	Absent	(c)
Pteridophyta	(a)	By Zoido-gamy	(b)	Arche-gonium
Gymno-sperm	Sporo-phyte	By Siphono-gamy and Zoidogamy	present	(d)

	(a)	(b)	(c)	(d)
(1)	Sporophyte	Present	Archegonium	Archegonium
(2)	Sporophyte	Absent	Oogonium	Archegonium
(3)	Gametophyte	Present	Oogonium	Carpel
(4)	Gametophyte	Present	Archegonium	Carpel

19. A group of algae, having following characters:-

(a) Chlorophyll a and b are present

(b) Chloroplast has one or many pyrenoids

(c) Cell wall made of cellulose and pectose

(d) Reserve food material is starch

Which one of the following is also a very important character including above characters to call it as a member of chlorophyceae ?

(1) Plant body colonial only

(2) Plant body is made of haploid cells called as gametophyte

(3) Its flagellar character may be 2–8 in number, equal and apical

(4) It may occur in fresh water, brackish water or salt water

20. In which member chlorophyll a, c and fucoxantin are present ?

(1) *Ectocarpus* (2) *Gelidium*

(3) *Volvox* (4) *Vaucheria*

21. Floridean starch is characteristic feature of :-

(1) *Polysiphonia, Gracilaria, Porphyra*

(2) *Laminaria, Sargassum, Porphyra*

(3) *Polysiphonia, Laminaria, Porphyra*

(4) *Chara, Dictyota, Polysiphonia*

22. Gemmae are the structures of :-

(1) Asexual reproduction produced in *Marchantia*

(2) Sexual reproduction produced in most mosses

(3) Asexual reproduction produced in most mosses

(4) Sexual reproduction produced in most liverworts

23. Predominant stage of them is gametophyte, they vegetatively reproduce by fragmentation and budding. They produce male and female gametes in antheridia and archegonia, respectively. After fertilisation zygote develops into a sporophyte consisting of foot, seta and capsule, in them spore formed in their capsule form protonema on germination. The above description is about the group :-

(1) Lycopsida (2) Bryopsida

(3) Hepaticopsida (4) Psilopsida

24. Integumented megasporangia are formed in :-

(1) Phanerogames (2) Cryptogames only

(3) Gymnosperms only (4) Pteridophytes only

25. Evolutionary first terrestrial plants to possess vascular tissues xylem and phloem are :-

(1) Psilopsids (2) Lycopods

(3) Pteropsids (4) Sphenopsids

26. Needle like leaves to reduce the surface area, thick cuticle, and sunken stomata to reduce water loss etc. are the xerophytic characters present in :-

(1) Pteridophytes

(2) Gymnosperms

(3) Angiosperms

(4) Sphenopsida

27. Most reduced gametophyte is found in :-

(1) Bryophyta

(2) Pteridophyta

(3) Gymnosperms

(4) Angiosperms

28. Consider the following characters :-

(A) Formation of only one functional megaspore in a megasporangium

(B) Formation of hard covering around megasporangium

(C) Development of embryo from zygote within the female gametophyte

(D) Retention of megaspore inside the megasporangium

These were very essential events occurred during the course of evolution for the phenomenon of:-

(1) Heterospory

(2) Seed habit

(3) Fruit formation

(4) Covered seed formation