

Msc Botany

Semester I Internal I

Question bank paper III: Bryology and Pteridology

I. Multiple Choice Questions

1. Bryophytes are commonly known as

- a) Seed plants
- b) Amphibians of the plant kingdom
- c) Marine plants
- d) Xerophytes

Answer: b

2. Marchantiales primarily includes

- a) Mosses
- b) Hornworts
- c) Complex thalloid liverworts
- d) Leafy liverworts

Answer: c

3. Jungermanniales are commonly referred to as

- a) Hornworts
- b) Leafy liverworts
- c) Mosses
- d) Fern allies

Answer: b

4. Anthocerotales belong to which bryophyte group

- a) Liverworts
- b) Mosses
- c) Hornworts

d) Ferns

Answer: c

5. Sphagnales includes which plant type

- a) True mosses
- b) Peat mosses
- c) Hornworts
- d) Complex thalloid liverworts

Answer: b

6. Funariales is an order of

- a) Liverworts
- b) Hornworts
- c) Sphagnum group
- d) True mosses

Answer: d

7. Polytrichales are distinguished from other mosses by

- a) Stellate thallus
- b) Thicker leaves with lamellae
- c) Horn-like sporophytes
- d) Oil bodies in cells

Answer: b

8. The dominant phase in bryophytes is

- a) Sporophyte
- b) Gametophyte
- c) Zygote
- d) Protonema

Answer: b

9. The sporophyte of bryophytes is generally

- a) Independent
- b) Completely free-living
- c) Dependent on gametophyte
- d) Photosynthetic and free-living

Answer: c

10. Bryophytes require water mainly for

- a) Photosynthesis
- b) Nutrient absorption
- c) Mineral transport
- d) Fertilization

Answer: d

11. The earliest fossil bryophytes appear in which geological period

- a) Devonian
- b) Triassic
- c) Jurassic
- d) Pleistocene

Answer: a

12. Early vascular plants first appeared in the

- a) Cambrian
- b) Silurian
- c) Cretaceous
- d) Paleogene

Answer: b

13. The Telome Theory was proposed by

- a) Bower

b) Zimmermann

c) Engler

d) Eichler

Answer: b

14. According to the Telome Theory, the fusion of telomes results in

a) Dichotomy

b) Webbing

c) Overtopping

d) Fertile appendages

Answer: b

15. The stele type found in primitive pteridophytes is

a) Eustele

b) Siphonostele

c) Protostele

d) Atactostele

Answer: c

16. Pteridophytes reproduce through

a) Seeds

b) Spores

c) Cones

d) Flowers

Answer: b

17. Heterospory means production of

a) One type of spore

b) Male and female cones

c) Two types of spores (micro & mega)

d) Spores and seeds together

Answer: c

18. Which pteridophyte group first showed seed habit tendency

- a) Lycopsida
- b) Psilopsida
- c) Sphenopsida
- d) Pteropsida

Answer: a

19. Seed habit begins with

- a) Homospory
- b) Heterospory and retention of megasporangium
- c) Only megasporangium production
- d) Production of sporocarps

Answer: b

20. Ecology of bryophytes is best described as

- a) Mostly marine
- b) Extreme xerophytes
- c) Moist and shaded habitat preference
- d) Only desert plants

Answer: c

II. Fill in the blanks

1. Bryophytes are commonly known as ____ plants (Amphibians of the plant kingdom)
2. The dominant generation in bryophytes is the _____. (Gametophyte)
3. The sporophyte of bryophytes remains attached to the _____. (Gametophyte)
4. The order to which Marchantia belongs is _____. (Marchantiales)
5. Riccia is included under the class _____. (Hepaticopsida)
6. The unique water-holding plant group Sphagnum belongs to the order _____. (Sphagnales)

7. The peristome teeth are characteristic of the order ____.(Funariales)
8. Anthoceros shows the presence of a persistent ____ in the sporophyte.(Meristem)
9. The process of formation of gametes is called ____.(Gametogenesis)
10. The first land plants are believed to be ____.(Bryophytes)
11. In bryophytes, meiosis occurs in the ____.(Capsule (sporophyte))
12. The study of fossils is called ____.(Paleontology)
13. Early vascular plants include extinct groups like ____.(Psilophytes)
14. The conducting tissue in pteridophytes is called ____.(Vascular tissue)
15. The phenomenon of two types of spores in one plant is termed ____.(Heterospory)
16. Microspore develops into ____ gametophyte.(Male)
17. Megaspore develops into ____ gametophyte.(Female)
18. In pteridophytes, the dominant plant body is the ____.(Sporophyte)
19. The evolution of seed habit began with ____.(Heterospory)
20. Fossil forms of early vascular plants were discovered in ____ rocks.(Devonian)

III. Descriptive questions

1. Write sporophyte evolution in bryophytes

(Or)

2. Write fossil history of bryophytes

3. Write Telome concept and its applications

(Or)

4. Write evolution of stele in pteridophytes