

**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) Lycopsidea
- b) Psilopsida
- c) Sphenopsida
- d) Pteropsida

Answer: a

19. Seed habit begins with

- a) Homospory
- b) Heterospory and retention of megaspore
- c) Only megaspore 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