

Gametophyte and Sporophyte Generations in Mosses

Biology · Practice Test · 20 Questions

1. What is the plant body of the gametophyte generation in mosses known as?

- A) A true stem
- B) A thallus
- C) A rhizome
- D) A sporophyte

2. Do mosses have true roots, stems, and leaves?

- A) Yes
- B) No
- C) Only true roots
- D) Only true stems

3. What type of covering do mosses lack on their structures, which is present on true leaves?

- A) A waxy cuticle
- B) A protective bark
- C) A layer of cells
- D) A stomatal layer

4. The absence of a cuticle in mosses allows them to absorb water directly through which part of the plant body?

- A) Only through the rhizoids
- B) Only through the leaf-like structures
- C) Any part of the plant body (thallus)
- D) Only through specialized pores

5. Are mosses considered vascular or non-vascular plants?

- A) Vascular
- B) Non-vascular
- C) Both vascular and non-vascular
- D) Neither

6. Which vascular tissues are absent in mosses?

- A) Xylem and phloem
- B) Cambium and vascular cambium
- C) Phloem and sieve tubes
- D) Xylem and tracheids

7. Due to their non-vascular nature, how do mosses absorb water?

- A) Only from the soil
- B) Directly from the soil and the air
- C) Only from the air
- D) Through specialized root hairs

8. What are spores in the moss life cycle?

- A) Sexual reproductive structures
- B) Asexual reproductive structures
- C) Structures for water absorption
- D) Structures for photosynthesis

9. Spores are formed by which generation of the moss life cycle?

- A) Gametophyte generation
- B) Sporophyte generation
- C) Both generations equally
- D) Neither generation

10. In what structure are spores formed within the sporophyte generation?

- A) A sporangium called the capsule
- B) A sporangium called the archegonium
- C) A sporangium called the antheridium
- D) A sporangium called the rhizoid

11. What is required for sperm to move to the ovum for fertilization in mosses?

- A) Air currents
- B) Wind
- C) Water
- D) Insects

12. What is the term for the structure that anchors the gametophyte to the substrate?

- A) Seta
- B) Foot
- C) Rhizoid
- D) Capsule

13. The 'foot' is part of which generation in the moss life cycle?

- A) Gametophyte
- B) Sporophyte
- C) Both
- D) Neither

14. The 'seta' is a stalk-like structure that connects which two parts of the sporophyte?

- A) Rhizoid and capsule
- B) Foot and capsule
- C) Gametophyte and capsule
- D) Leaf-like structure and foot

15. Mosses lose water easily due to the absence of what?

- A) Rhizoids
- B) Cuticle
- C) Vascular tissue
- D) Spores

16. What does the term 'non-vascular' imply about a plant?

- A) It has no roots
- B) It has no stems
- C) It lacks specialized conducting tissues like xylem and phloem
- D) It cannot reproduce

17. The sporophyte generation is responsible for producing which structures?

- A) Thallus
- B) Rhizoids
- C) Spores
- D) Sperm

18. What term describes the 'leaf-like structure' found on some moss gametophytes?

- A) True leaf
- B) Scale
- C) Appendage
- D) None of the above

19. Fertilisation in mosses requires the sperm to reach the ovum. This process is an example of dependency on what for reproduction?

- A) Sunlight
- B) Carbon dioxide
- C) Water
- D) Nutrients

20. The 'foot' in the sporophyte generation is embedded within what?

- A) The soil
- B) The capsule
- C) The gametophyte
- D) The air