

Plant Life Cycles and Dominant Generations

Biology · Practice Test · 20 Questions

1. What does the 'dominant generation' in a plant's life cycle refer to?

- A) The generation that occurs first.
- B) The generation that is haploid.
- C) The generation that occupies the largest portion of the life cycle.
- D) The generation that produces spores.

2. In BRYOPHYTES, which generation is dominant?

- A) Sporophyte generation
- B) Gametophyte generation
- C) Zygote generation
- D) Spore generation

3. Which types of plants have a dominant sporophyte generation?

- A) Only Bryophytes
- B) Bryophytes, Pteridophytes, Gymnosperms, and Angiosperms
- C) Pteridophytes, Gymnosperms, and Angiosperms
- D) Only seed-bearing plants

4. What is an advantage of having a dominant sporophyte generation?

- A) It allows plants to reproduce asexually.
- B) Fertilization and dispersal can be timed with environmental conditions.
- C) It requires less water for reproduction.
- D) It leads to smaller gametophytes.

5. What do pollen grains in seed-bearing plants contain when mature?

- A) Zygotes
- B) Sporophytes
- C) Male gametophytes
- D) Embryos

6. BRYOPHYTES are described as the most primitive land plants. What is a key environmental requirement for their life cycle?

- A) Arid deserts
- B) Moist and shady environments
- C) Open grasslands
- D) High altitudes

7. What is a characteristic of most mosses regarding water availability?

- A) They cannot survive drying out.
- B) They can withstand long periods of drying and spring back to life.
- C) They require constant submersion in water.
- D) They only grow in very humid air.

8. Which of the following is NOT a type of bryophyte mentioned in the text?

- A) Mosses
- B) Liverworts
- C) Ferns
- D) Hornworts

9. In the context of plant life cycles, 'gamete' refers to a:

- A) Reproductive cell
- B) Spore
- C) Zygote
- D) Seed

10. What process is involved in the formation of spores from diploid cells in plants?

- A) Mitosis
- B) Fertilization
- C) Meiosis
- D) Germination

11. The 'capsule' in bryophytes is also known as a:

- A) Gametophyte
- B) Sporophyte
- C) Sporangium
- D) Rhizoid

12. Bryophytes are dependent on water to complete their life cycle. This dependence is primarily for:

- A) Photosynthesis
- B) Nutrient absorption
- C) Reproduction (fertilization)
- D) Structural support

13. What are 'rhizoids' in bryophytes?

- A) True roots
- B) Leaf-like structures
- C) Structures for anchorage
- D) Reproductive organs

14. The stage that follows fertilization in a plant life cycle is the:

- A) Gametophyte
- B) Zygote
- C) Spore
- D) Sporophyte

15. Vascular plants include which of the following groups?

- A) Bryophytes only
- B) Pteridophytes, Gymnosperms, and Angiosperms
- C) Mosses and Liverworts
- D) Algae

16. The term 'thallus' is mentioned in relation to the gametophyte of some plants. What does it typically describe?

- A) A complex root system
- B) A simple, undifferentiated plant body
- C) A woody stem
- D) A flower structure

17. Which of the following is a process that occurs during the development of a gametophyte from a spore?

- A) Meiosis
- B) Fertilization
- C) Mitosis
- D) Sporulation

18. What is the primary function of the sporophyte generation in vascular plants?

- A) To produce gametes
- B) To absorb water
- C) To produce spores
- D) To anchor the plant

19. The male gametophyte develops from a:

- A) Zygote
- B) Sporophyte
- C) Spore
- D) Gametophyte

20. The text states that bryophytes 'do not have' true roots, stems, or leaves. This indicates they are:

- A) Highly evolved plants
- B) Non-vascular plants
- C) Seed-producing plants
- D) Flowering plants