

# Fungi: Biology and Ecology Quiz

Biology · Practice Test · 25 Questions

---

**1. What is the primary ecological role of fungi in nutrient cycling?**

- A) Nitrogen fixation
- B) Decomposition of organic matter
- C) Oxygen production
- D) Water filtering

**2. To which fungal phylum does the black bread mold *Rhizopus stolonifer* belong?**

- A) Zygomycota
- B) Basidiomycota
- C) Chytridiomycota
- D) Ascomycota

**3. What is the dormant structure formed by fungi under unfavorable conditions called?**

- A) Sporangium
- B) Zygospore
- C) Ascus
- D) Basidium

**4. In lichens, what is the main function of the algal partner?**

- A) Nitrogen fixation
- B) Water absorption
- C) Photosynthesis
- D) Decomposition

**5. *Candida albicans* is a fungal species commonly associated with what?**

- A) Antibiotic production
- B) Bread fermentation
- C) Human infection
- D) Bacterial infection

**6. Which fungal structure is responsible for sexual spore formation in Basidiomycota?**

- A) Spores
- B) Ascus
- C) Basidium
- D) Conidia

**7. What does the term 'coenocytic hyphae' refer to?**

- A) Hyphae with many septa
- B) Multinucleate hyphae without cross-walls
- C) Multicellular hyphae
- D) Hyphae that produce spores

**8. Which of the following is a disease caused by a fungus?**

- A) Malaria
- B) Typhus
- C) Athlete's foot
- D) Tuberculosis

**9. What is the primary function of fungal mycelium?**

- A) Nutrient absorption
- B) Sexual reproduction
- C) Photosynthesis
- D) Nitrogen fixation

**10. Which fungal phylum produces flagellated gametes?**

- A) Zygomycota
- B) Basidiomycota
- C) Chytridiomycota
- D) Ascomycota

**11. The fungal disease ringworm is caused by what type of organism?**

- A) Protists
- B) Viruses
- C) Bacteria
- D) Dermatophytes

**12. What substance is the primary component of fungal cell walls?**

- A) Cellulose
- B) Chitin
- C) Lignin
- D) Protein

**13. Which of the following fungi reproduces by budding?**

- A) *Saccharomyces cerevisiae*
- B) *Rhizopus stolonifera*
- C) *Penicillium notatum*
- D) *Aspergillus flavus*

**14. In Basidiomycota, what lines the gills of a mushroom?**

- A) Sporangia
- B) Basidia
- C) Asci
- D) Rhizoids

**15. Fungi that feed on living organisms, causing diseases, are classified as what?**

- A) Parasites
- B) Pathogens
- C) Symbionts
- D) Decomposers

**16. What is the name of the association between fungi and cyanobacteria?**

- A) Mycorrhizae
- B) Lichens
- C) Slime mold
- D) Rhizoids

**17. Which of these fungi is used in the production of blue cheese?**

- A) *Candida albicans*
- B) *Penicillium roqueforti*
- C) *Aspergillus wentii*
- D) *Rhizopus stolonifera*

**18. The dikaryotic stage in fungi occurs after which process?**

- A) Spore germination
- B) Plasmogamy
- C) Mitosis
- D) Karyogamy

**19. What structure is produced by fungi during asexual reproduction?**

- A) Sporangium
- B) Ascus
- C) Conidia
- D) Basidium

**20. The symbiotic relationship in which fungi absorb water and nutrients for a plant host is called what?**

- A) Commensalism
- B) Mutualism
- C) Parasitism
- D) Mycorrhiza

**21. What is a characteristic of imperfect fungi (Deuteromycota)?**

- A) Lack of a sexual reproductive stage
- B) Production of flagellated spores
- C) Lack of cell wall
- D) Multicellular fruiting bodies

**22. What does the term 'haustoria' refer to?**

- A) Sexual reproductive organ
- B) Specialized hyphae for nutrient absorption from host cells
- C) Structures for spore dispersal
- D) Flagellated fungal cell

**23. Aspergillus niger is commonly used for the production of what?**

- A) Alcohol
- B) Cheese
- C) Antibiotics
- D) Citric acid

**24. What term describes fungi that can exist as both molds and yeasts?**

- A) Symbionts
- B) Dimorphic fungi
- C) Pathogens
- D) Parasitic fungi

**25. What is the role of the fungal partner in a lichen?**

- A) Photosynthesis
- B) Water retention and protection
- C) Nitrogen fixation
- D) Nutrient absorption