

# Fungi: Biology and Ecology Quiz

Biology · Answer Key · 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) Zygosporangium**
- 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