

1. Mycology is the study of **fungi**.
2. What are the two groups of fungi?
 - **macroscopic fungal forms**
 - **microscopic fungal forms**
3. What characteristics do fungi have?
 - **chemoheterotrophs**
 - **multicellular**
 - **yeasts are unicellular**
 - **chitin cell walls**
 - **sexual & asexual spores**
4. Describe the types of microscopic fungi.
 - ***yeasts → budding yeasts (reproduce by budding & divide asymmetrically) and fission yeasts (reproduce by fission & divide symmetrically)**
5. What does dimorphic mean?
 - The organism has two distinct forms**
6. Describe the two types of hyphae.
 - **vegetative hyphae → digest & absorb nutrients**
 - **reproductive hyphae → branch off vegetative hyphae & produce spores for reproduction**
7. **Thallus** is a term referring to the body or assimilative structure of a fungus (can be yeast-like or mold-like)
8. List and explain the reproduction methods of fungi.
 - **asexual reproduction:**
 - Fragmentation → separated piece of mycelium forms a whole new colony of hyphae**
 - Mitotic division → forms spores, occurs within a “reproductive Hyphae”**
 - **sexual reproduction → occurs through fusion of two opposite fertile hyphae strains (“plus” & “minus”)**

9. What is a zygospore?
The product of two parent strains fusing, creating a zygote (goes on to become zygospore)
10. The male and female organs fuse to form a special sac, called an **ascus**.
11. List the phyla within kingdom Eumycota.
- zygomycota
- ascomycota
- basidiomycota
12. How can you identify fungi?
Macroscopic & microscopic observations (spores, hyphal type, colony texture & pigmentation, physiological characteristics, genetic makeup)
13. What are the roles of fungi?
Adverse impact → allergies, toxin production, destruction of crops
Beneficial impact → decomposers of dead plants & animals, sources of antibiotics, alcohol, foods, flavors, & vitamins
14. Algae contains chloroplasts.
a. True
b. False
15. What are plankton?
Free-living algae
16. Describe protozoa.
Lack cell wall
Most are unicellular (colonies are rare)
Heterotrophic
Most have locomotor structures
17. How do protozoa reproduce?
Asexually → fission, budding, and schizogony (multiple fission)
18. List the groups used in protozoan identification.
Flagellates, amoebas, ciliates, & apicomplexans

19. What are some protozoan pathogens?

- **trypanosomes**
- **Giardia intestinalis**
- **Trichomonas vaginalis**
- **Entamoeba histolytica**
- **Balantidium coli**
- **Plasmodium**

20. What kingdom do helminths fall under?

Animalia

21. Explain *definitive host* and *intermediate host*.

Intermediate host harbors the larval / asexual stage

Definitive host harbors the sexually mature adult

22. Arthropods can be called **vectors** because they transmit diseases.