

True or False

1. Ferns do not have a vascular system
2. River blindness is caused by a potent toxin produced by a fungus
3. Chytridomycosis is a fungal disease partly responsible for the decline of amphibians
4. Only animals and plants evolved multicellularity

Multiple choice

5. Which of the following structures allows genes to move between two different species of bacteria

- A) Peptidoglycan
- B) Fimbriae
- C) Plasmid
- D) Endospore
- E) Biofilm

6. A photoheterotroph derives its carbon from _____ and its energy from _____

- A) organic compounds and chemical bounds
- B) CO₂ and sunlight
- C) chemical bounds and CO₂
- D) CO₂ and chemical bounds
- E) organic compounds and sunlight

7. When making canned food such as jam, it is imperative to sterilize the jars to prevent the growth of pathogenic bacterium such as *Clostridium botulinum*. Which persistent bacterial structure does the sterilization process destroys.

- A) Endospores
- B) Zoospores
- C) Lipopolysaccharides
- D) Plasmids
- E) Pollen

8. Which of the following options is not evidence supporting the endosymbiotic origin of eukaryotes?

- A) Mitochondria and plastids have their own DNA.
- B) Mitochondria and plastids reproduce independently of the rest of the cell.

- C) Mitochondria and plastids produce their own inner membrane
- D) Mitochondria and plastids are susceptible to antibiotics specific to prokaryotes
- E) All of the above options are evidence for the evolution of eukaryotic cells by endosymbiosis

9. Swimmer's itch is caused by a _____ called _____ that is transmitted by _____

- A) bacterium – *Vibrio cholerae*– water
- B) bacterium – *Clostridium* –flies
- C) diplomonad – *Giardia* – water
- D) apicomplexan– *Plasmodium* - mosquitoes
- E) flatworm – a fluke – snails

10. Which organism causes shellfish poisoning?

- A) Red algae
- B) Diatoms
- C) Dinoflagellates
- D) Ciliates
- E) Cyanobacteria

11. In flowering plants, the _____ houses the ovule and matures into a fruit.

- A) carpel
- B) stigma
- C) sepals
- D) ovary
- E) ovulate cone

12. Land plants have a life cycle with alternating generations in which

- A) spores produced by meiosis give rise to a diploid gametophyte
- B) spores produced by meiosis give rise to a diploid sporophyte
- C) spores produced by meiosis give rise to a haploid gametophyte
- D) spores produced by mitosis give rise to a diploid gametophyte
- E) spores produced by meiosis give rise to a haploid sporophyte

Key

1. F
2. F
3. T
4. F
5. C
6. B
7. A
8. E
9. E
10. C
11. D
12. C