



Abbas Laghrou University Khanchela*

Faculty of Natural and Life Sciences

Department of Biology

Level: L2 common core, Biology, Ecology, Agronomy.

Name :

first name :

Group :

Mark/20

Final Exam in Botany

14/06/2026 from 11h00 p.m. to 12h30 p.m.

A

1) Which three groups are included in Embryophytes (land plants)?

- A) Bryophytes, Pteridophytes, Spermatophytes
B) Green algae, Bryophytes, Ferns
C) Marchantiophytes, Hornworts, pheophytes
D) Lycophytes, Sphenophytes, Lichens

2) Rhyniophytes (fossil plants) had:

- A) Complex roots and leaves
B) Abundant secondary xylem
C) Dichotomously branched axes ending in sporangia
D) Flowers and seeds

3) The haplodiplophasic trigenetic cycle is found in:

- A) Rhodophyte.
B) Cyanophytes.
C) Chlorophytes.
D) Phaeophytes.

4) The thallophytes are :

- A) Vascular cryptogams
B) non-vascular phanerogams
C) non-vascular cryptogams
D) Vascular phanerogams

5) Chloroplasts in red algae originate from:

- A) primary endosymbiosis
B) secondary endosymbiosis
C) tertiary endosymbiosis
D) no correct answer

6) What characterizes archegoniates?

- A) Presence of flowers and seeds
B) Absence of a cuticle
C) Possession of an archegonium, a multicellular female reproductive organ
D) A haplontic life cycle

7) The genus *Oscillatoria* belongs to the kingdom of:

- A) Eubacteria
B) Plantae
C) Fungi
D) no correct answer

8) In Embryophytes, the zygote (2n) first develops into:

- A) Four meiospores
B) A haploid gametophyte
C) A diploid embryo
D) A resistant spore

9) The primary storage substance in fungi is:

- A) Glycogen
B) Glucose.
C) Cellulose.
D) Chitin

10) Floridean starch serves as the primary storage polysaccharide in:

- A) *Chlorophyceae*
B) *Phaeophyceae*.
C) *Rhodophyceae*.
D) les *Cyanophyceae*

11) Which statement is true about bryophytes sensu lato?

- A) The sporophyte is dominant and independent
B) The gametophyte is the dominant phase of the cycle
C) They possess lignified conducting tissues
D) They are all heterosporous

12) Ascomycotina are

A) Algae B) Bryophyta C) Pteridophyta D) no correct answer.

13) Asexual reproduction in bryophytes can occur by:

- A) Seeds B) Fragmentation of the protonema
C) Zooidogamy D) Formation of elaters

14) Cyanophyceae have chloroplasts with:

- A) two membranes B) three membranes C) four membranes D) no correct answer.

15) Fertilization in pteridophytes require:

- A) Wind B) Water C) Insects D) Roots

16) Lichens result from the association of :

- A) an ascomycete and a green alga B) a basidiomycete and a green alga
C) a basidiomycete and a cyanobacterium D) All the answers are correct

17) What is zooidogamy in pteridophytes?

- A) Spore dispersal by wind B) Fertilization of the egg by a swimming sperm
C) Formation of propagules D) Germination of the prothallus

18) In Marchantiophyta (liverworts), archegonia are borne on:

- A) Antheridiophores B) Modified leaves
C) Horn-shaped sporangia D) Archegoniophores

19) In basidiomycetes, the spores are :

- A) Ascospores B) exospores D) Endospores D) All the answers are correct

20) Pteridophytes differ from bryophytes by:

- A) A dominant gametophyte B) Fertilization independent of water
C) Lack of a vascular system D) A sporophyte with roots, stems, and leaves