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MBBS

Bio 102 assignment

- 1) a) Fungi are important decomposers in most ecosystems.
- b) Fungi, as food, play a role in human nutrition in form of mushrooms.
- c) They are also agents of fermentation in the production of bread, cheeses, alcoholic beverages and numerous other food preparations.
- d) They influence the well-being of human populations on a large scale because they are a part of the nutrient cycle in ecosystem.
- e) Fungi are responsible for breaking down organic matter and releasing carbon, oxygen, nitrogen & phosphorus into soil and atmosphere.

2)

2



A well labelled structure of a  
Unicellular Fungus (*Saccharomyces cerevisiae*) (Yeast)

### 3) Rhizopus stolonifer

Sexual reproduction: - Occurs when two mating types of hyphae grow in the same medium. Chemical interaction in the two mating types of hyphae induces growths perpendicular to the hyphae in the opposite directions. These growths are delimited by a wall such that many nuclei are isolated in what is called a gametangium.

The two gametangia fuse (plasmogamy) and a zygote is formed which may undergo prolonged dormancy or resting stage. The ~~nuclei~~ nuclei in the zygotes fuse in twos and undergo meiosis independently.

The zygote germinates under favourable conditions to produce a fruiting which at maturity liberates the haploid spores.

④ a) They have definite structures for water and nutrient absorption from the soil; therefore the plant body is divided into two.

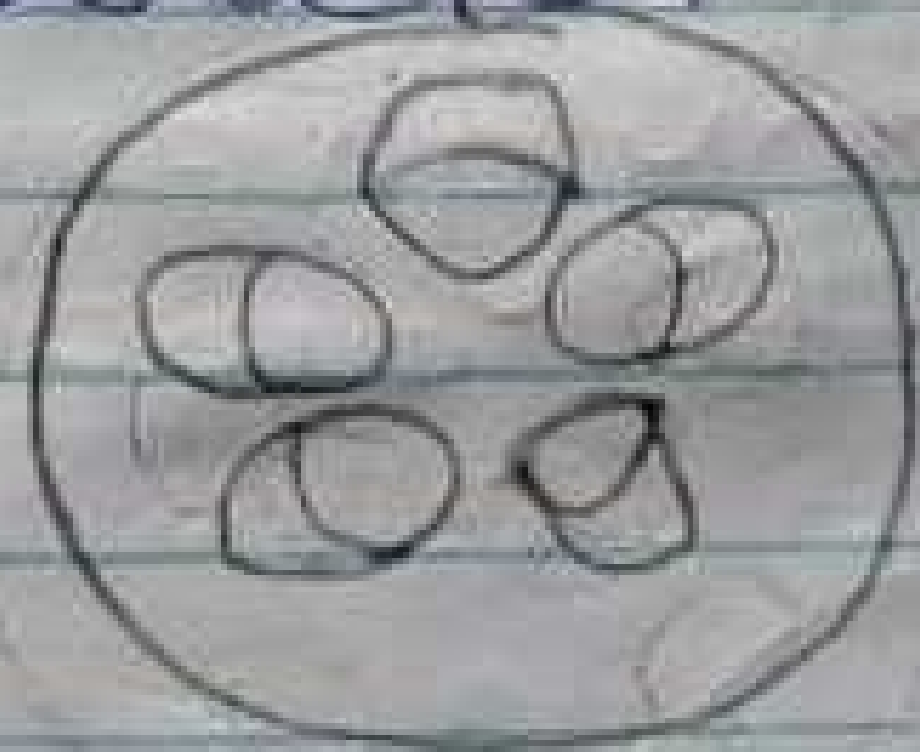
b) The aerial portion being exposed

to the atmosphere demands some modifications that prevents excessive loss of water through the body surface.

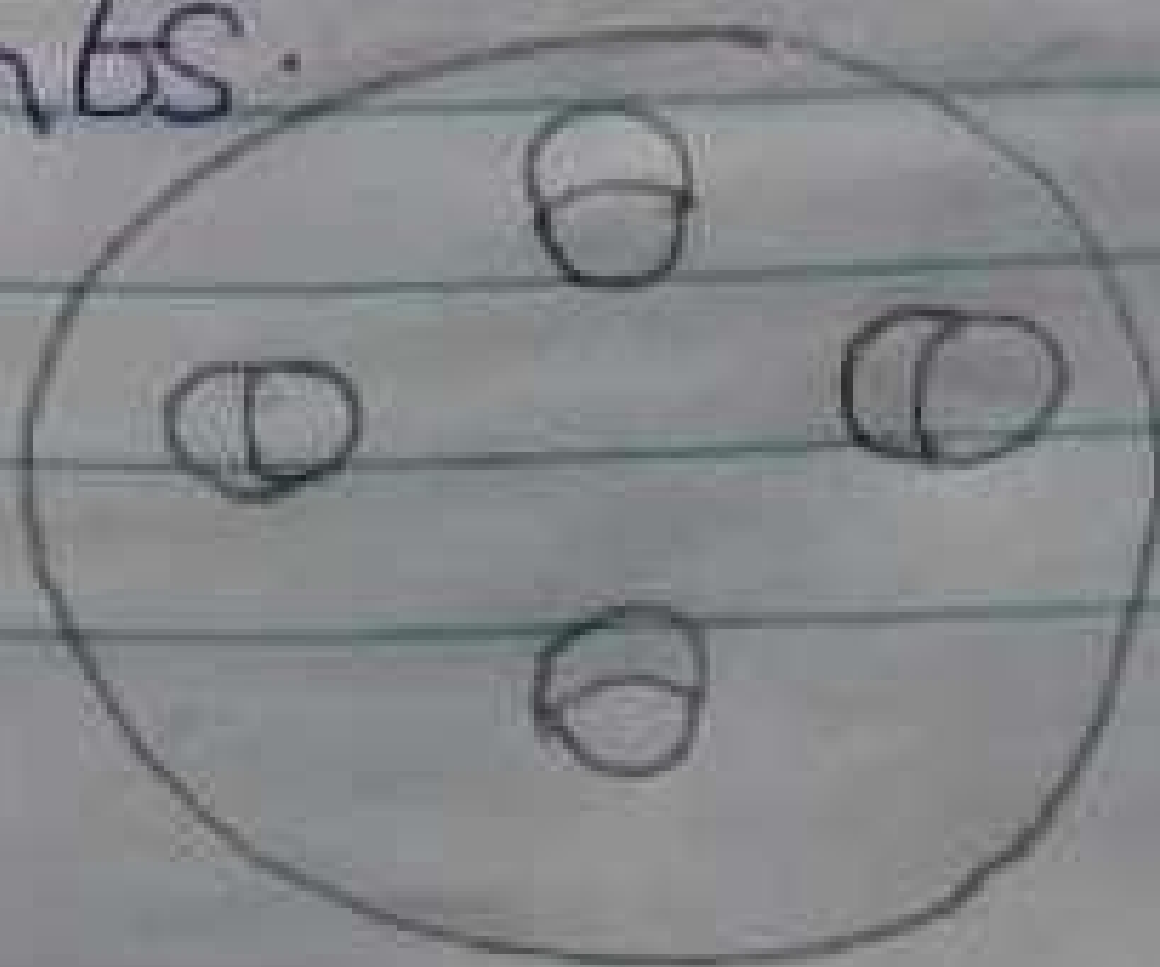
d) Openings are available on the aerial parts of the plant to permit elimination of ~~excess~~ excess water and exchange of gases.

5) Eustele: - Vascular bundles are discrete, concentric collateral bundles of xylem and phloem.

b) Abactostele:-



b) abactostele: The vascular bundles are scattered and occurs in monocotyledonous plants.



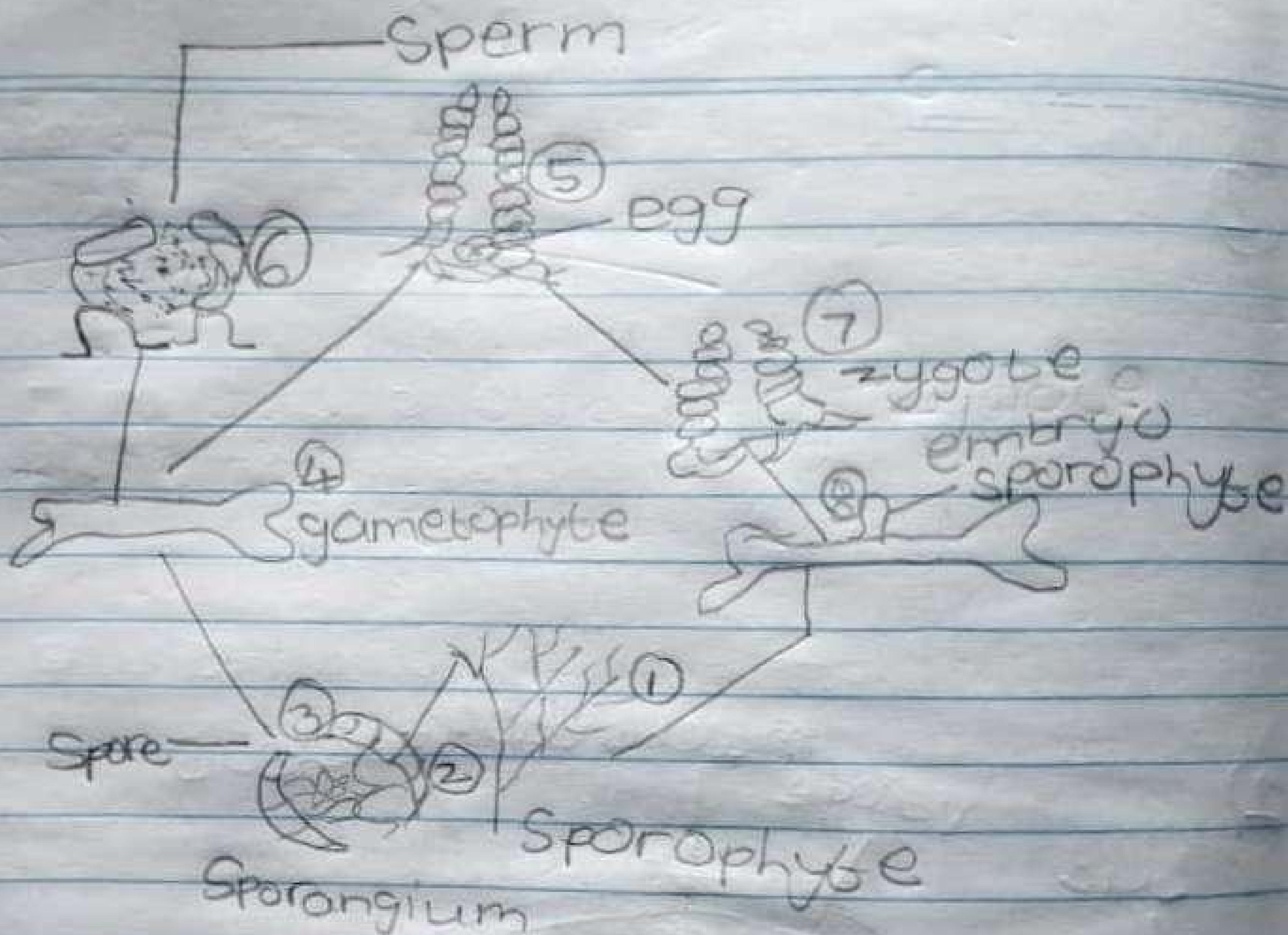
c) Siphonostele :- Vascular supply to leaves is associated with leaf gaps and the conducting cylinder is dissected.



d) dictyostele: Consisting of vascular strands interconnected in such a manner that, in any given cross section of stem, several distinct bundles can be observed.



6) life cycle of Psilobum



## Life cycle of

A sketched life cycle of Psilatum  
(Primitive vascular plant)