BIO 102 ASIGNMENT

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Department: NURSING

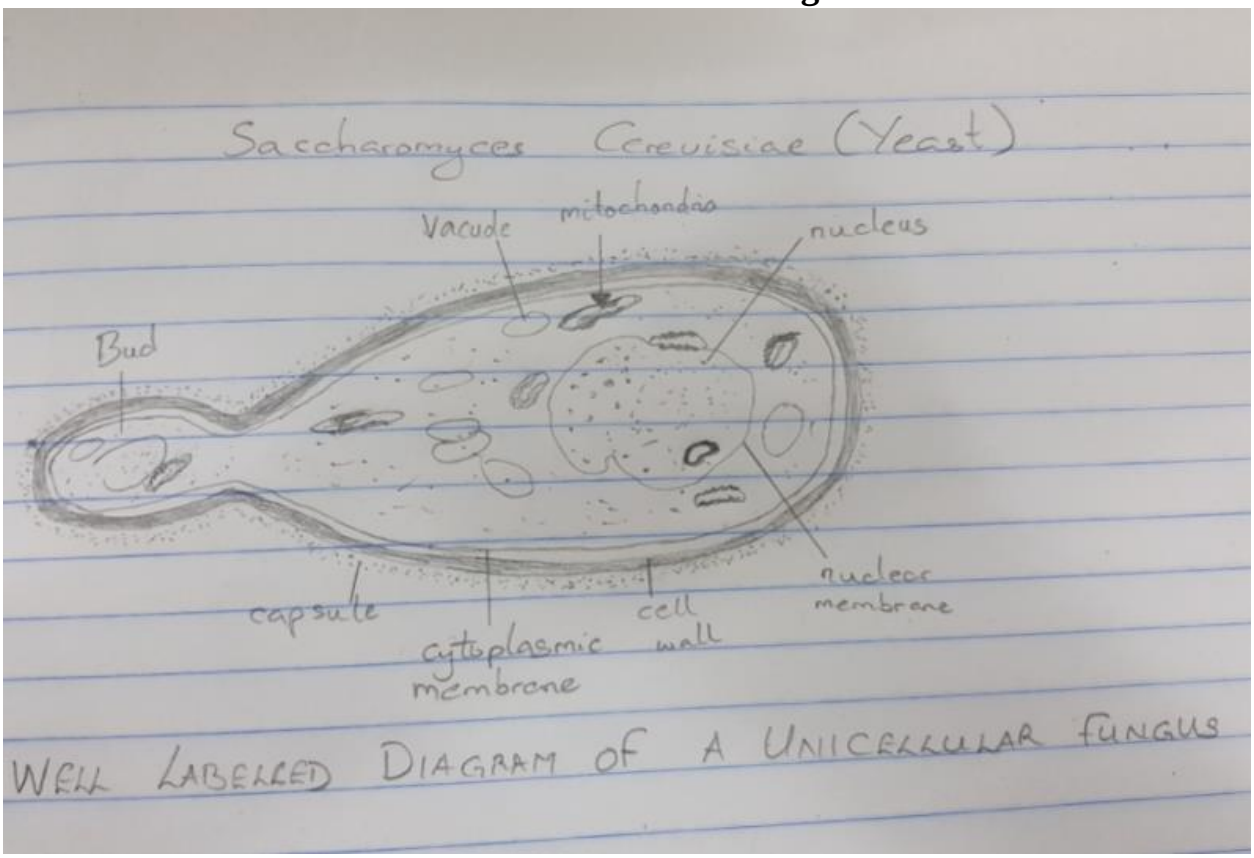
Course Code: BIO 102

Matric No: 19/MHS02/051

1. Importance of Fungi to Mankind

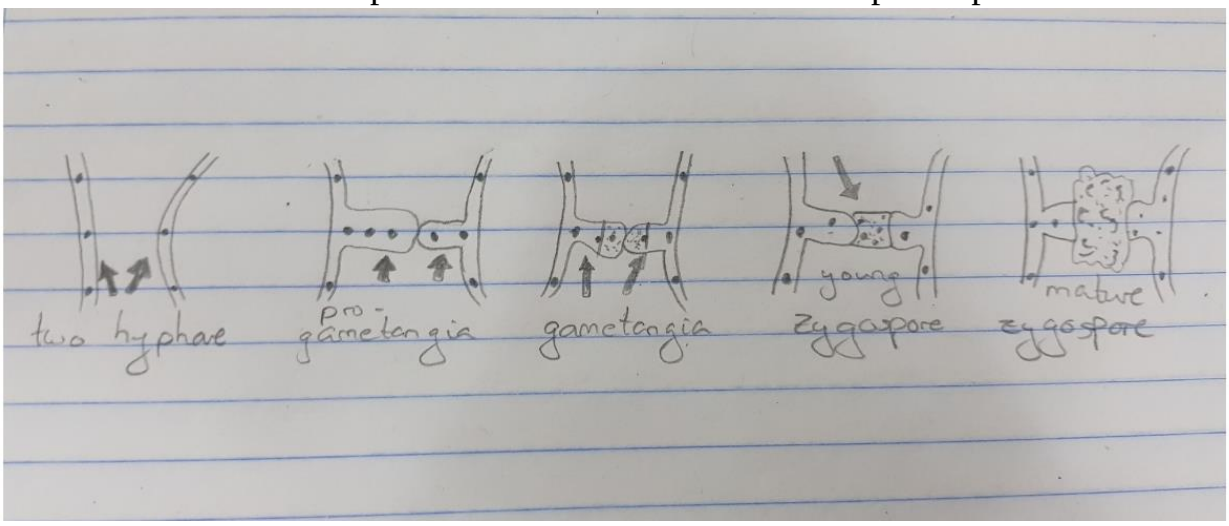
- Fungi are important to the entire terrestrial ecosystem in material cycling and to man.
- They are responsible for the mediation of decay of organic matter.
- Fungi, like yeast are important in the food industry.
- Many fungi species mediate spoilage of wood, food, clothes and paper.
- They are plant pathogens causing blight and smuts in cereal.
- Some fungi are parasites to certain horrible obnoxious pests and therefore, constitute important biological control agents to those pests.

2. Illustration of the Cell Structure of a Unicellular Fungus



3. **Sexual Reproduction in a typical Filamentous Form of Fungi**

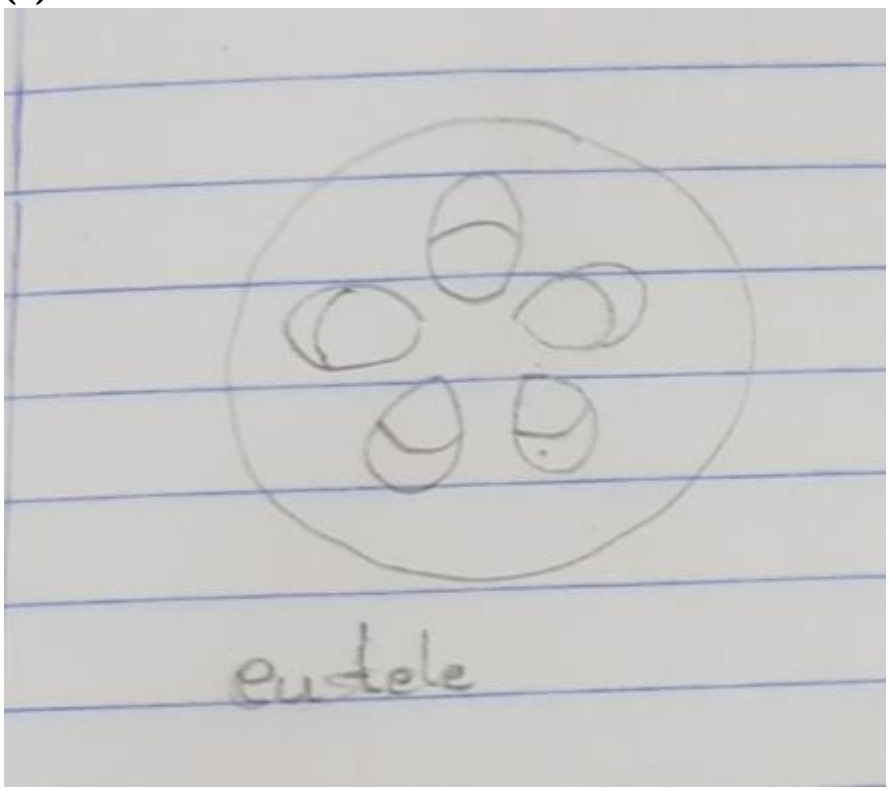
Rhizopus stolonifera: Sexual reproduction occurs when two mating types of hyphae grow in the same medium. Chemical interactions induce growth perpendicular to the hyphae in opposite directions. Growths are delimited by a wall such that many nuclei are isolated in what is called gametangium. The two gametangia fuse by plasmogamy and a zygote is formed which may undergo prolonged resting stage or dormancy. The nuclei in the zygote fuse in twos and undergo meiosis independently. The zygote germinates under favourable conditions to produce a fruit which liberates haploid spores.



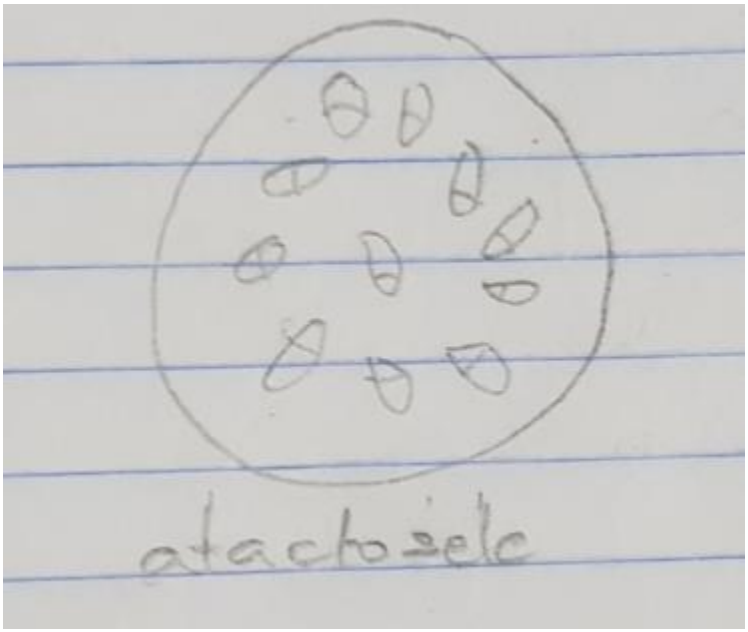
4. **Adaptation of Bryophytes to their Environment**

- They have definite structures for water and nutrient absorption from the soil; therefore, the plant body is divided into two: an aerial portion and a subterranean portion. The latter is the rhizoid and is not a true root like land plants that are advanced.
- The aerial portion being exposed to the atmosphere demands some modifications that prevents excessive loss of water through the body surface and;
- Other modifications that permit elimination of excess water from the plant body and not only exchange of gases between the internal parts of the plant and the atmosphere therefore openings are available on the aerial parts of the plant.

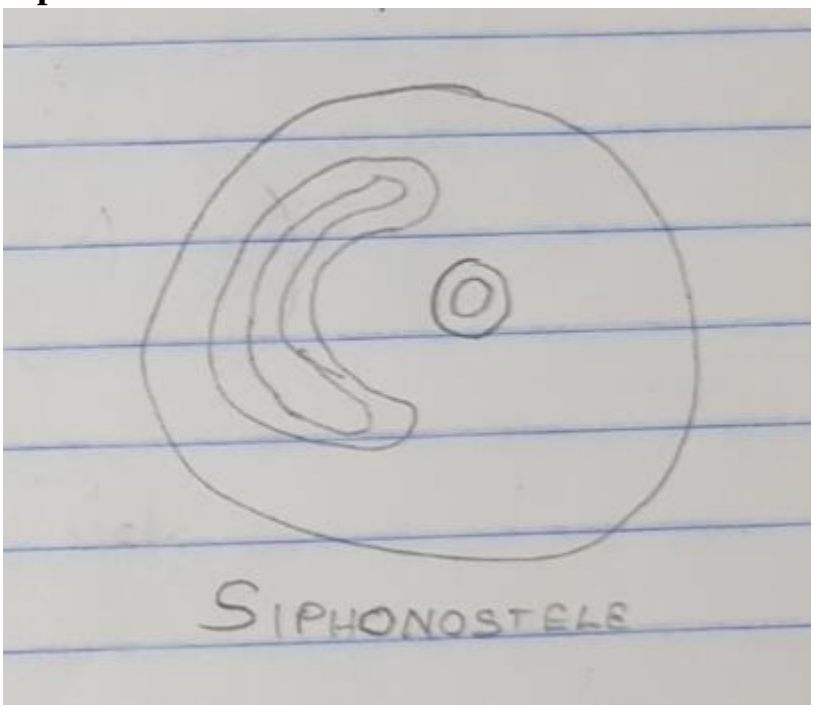
5. (a) Eusteles



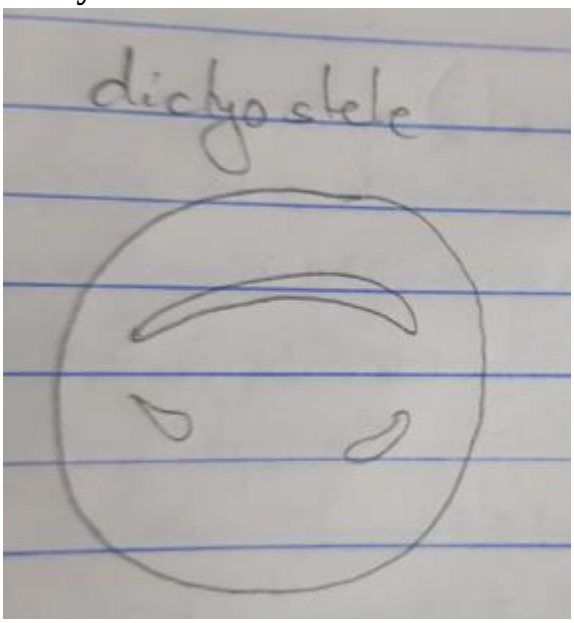
(b) Atactostele



(c) Siphonostele



(d) Dictyostele



6. Life Cycle of a Primitive Vascular Plant