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MATRIC NO: 19\MHS02\087

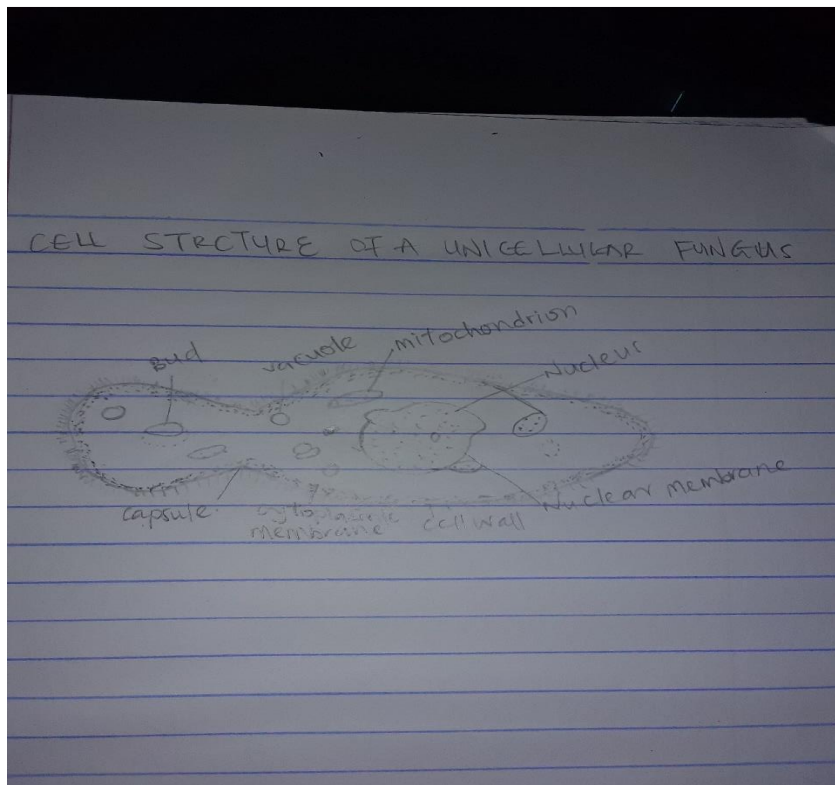
DEP: MHS\NURSING

COURSE: BIO 102

How are fungi important to mankind?

- . fungi, is responsible for mediation of decayed organic matter.
- . fungi e.g yeast are important in food industry.
- . fungi, influences the well-being of human population on a large scale because they are part of nutrient cycle in ecosystems.
- . they are also used as pesticides.
- . they are used as agents of fermentation in the production of bread, cheeses, alcoholic beverages, and other numerous food preparations.

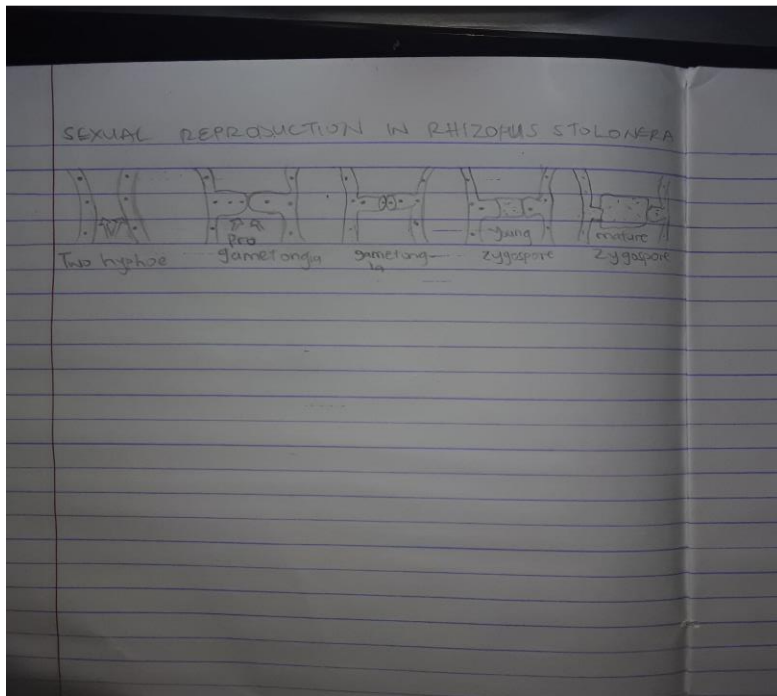
2.illustrate the cell structure of a unicellular fungus with a well labelled diagram.



3.

3. outline the 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 interaction in the two mating types of hyphae induces growths perpendicular to the hyphae in opposite directions, these growths are delimited by a wall such that many nuclei are isolated in what is called gametangium. The gametangia fuse (plasmogamy) and a zygote is formed which may undergo prolonged dormancy or resting stage. The nuclei in the zygote fuse in twos and undergo meiosis independently. The zygote germinates under favorable conditions to produce a fruiting which at maturity liberates the haploid spores.



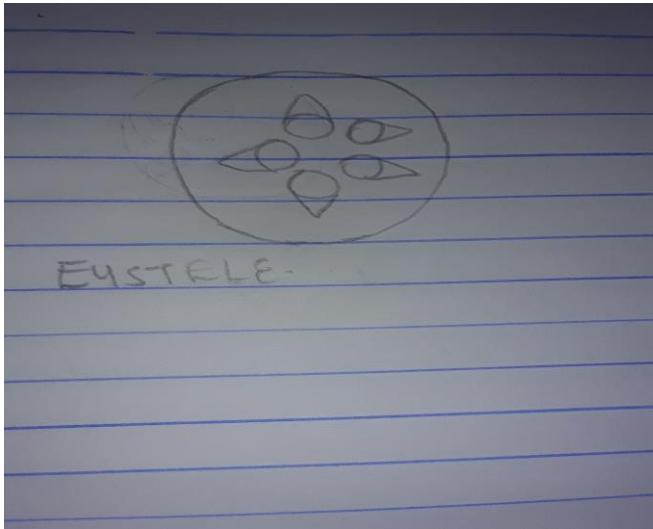
4. how do bryophytes adapt to their environment

. they have definite structures for water and nutrient absorption from the soil; therefore, the plant body is divided into two (aerial and subterranean portion). The subterranean portion is the rhizoid and is not a true root as the case of land plants that are advanced.

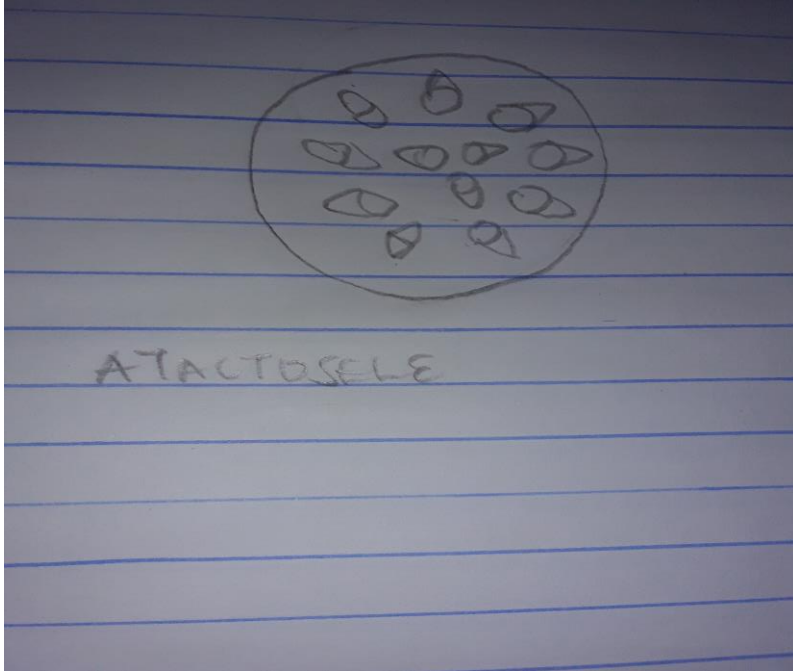
. the aerial portion being exposed to the atmosphere demands some modifications that prevents excessive loss of water through the body surface (i.e desiccation)

. some other modifications that permits 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.

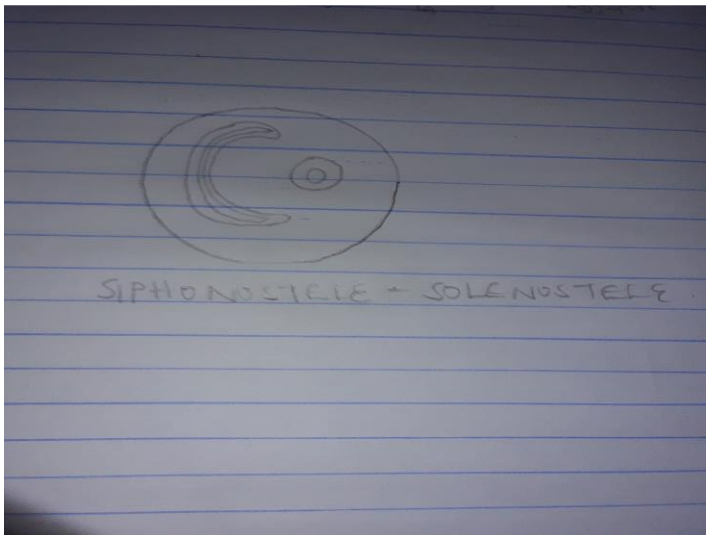
5. describe with illustration the following terminologie



Eustele: the vascular bundles are discrete, concentric collateral bundles of xylem and phloem.



Atactostele: in grasses and monocotyledonous plants the vascular bundles scatter.



Siphonostele: in more advanced vascular systems e.g stems of ferns and higher vascular plants, the stele is cylinder enclosing a parenchymatous pith.



Dictyostele: in siphonosteles, vascular supply to leaves is associated with leaf gaps and the conducting cylinder is a dissected one.

6. illustrate the life cycle of a primitive vascular plant.



3.