AMUSAN BLOSSOM OLUWATIMILEHIN

19/MHS01/093.

MEDICINE & SURGERY.

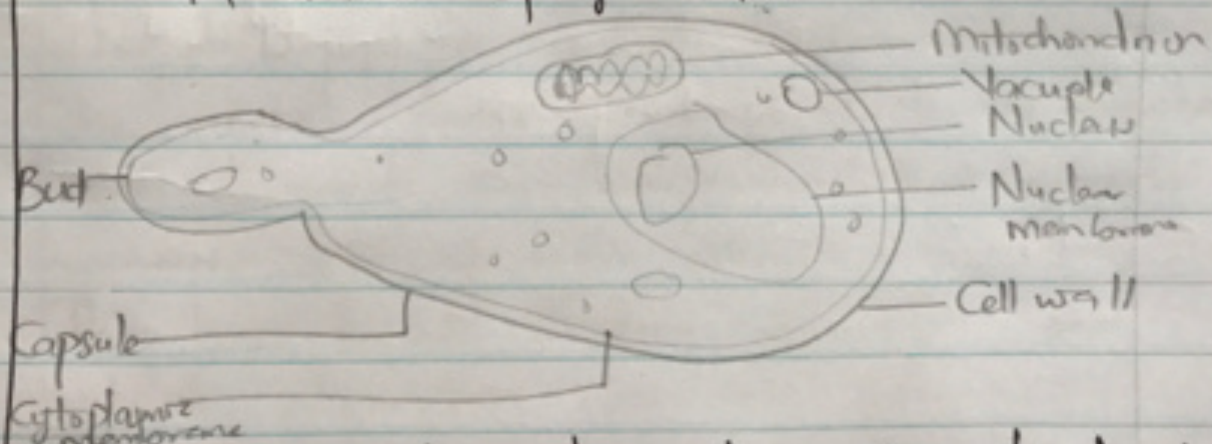
BIO 102

1. How are fungi important to mankind?

- They are responsible for the decay of organic matter
- They help in the food industry
- They mediate in the spoilage of wood, food, clothes, paper, and so on
- They cause blights and smuts in cereals.

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

A Unicellular fungus (Yeast)



3. Outline the sexual reproduction in a typical filamentous form of fungi

Case study: Rhizopus stolonifer

The sexual reproduction occurs when 2 mating type of hyphae grow in the same medium. Chemical interactions induce growth perpendicular to the hyphae in opposite directions. Many nuclei are isolated in a gametangium.
2 gametangia fuse together to form a zygote. The zygote undergoes dormancy, and after dormancy, the nuclei in the zygote fuse in two and undergo meiosis independently. The zygote germinates to produce a fruiting, which liberates haploid spores at maturation.

4. How do Bryophytes adapt to their environment
- The aerial portion is exposed to the atmosphere which demands some modification that prevents excessive loss of water through dessication
- They have definite structures for water and nutrient absorption from the soil
- Some modifications that permit elimination of excess water from the plant body and not in gas exchange are available on the aerial part of the plant

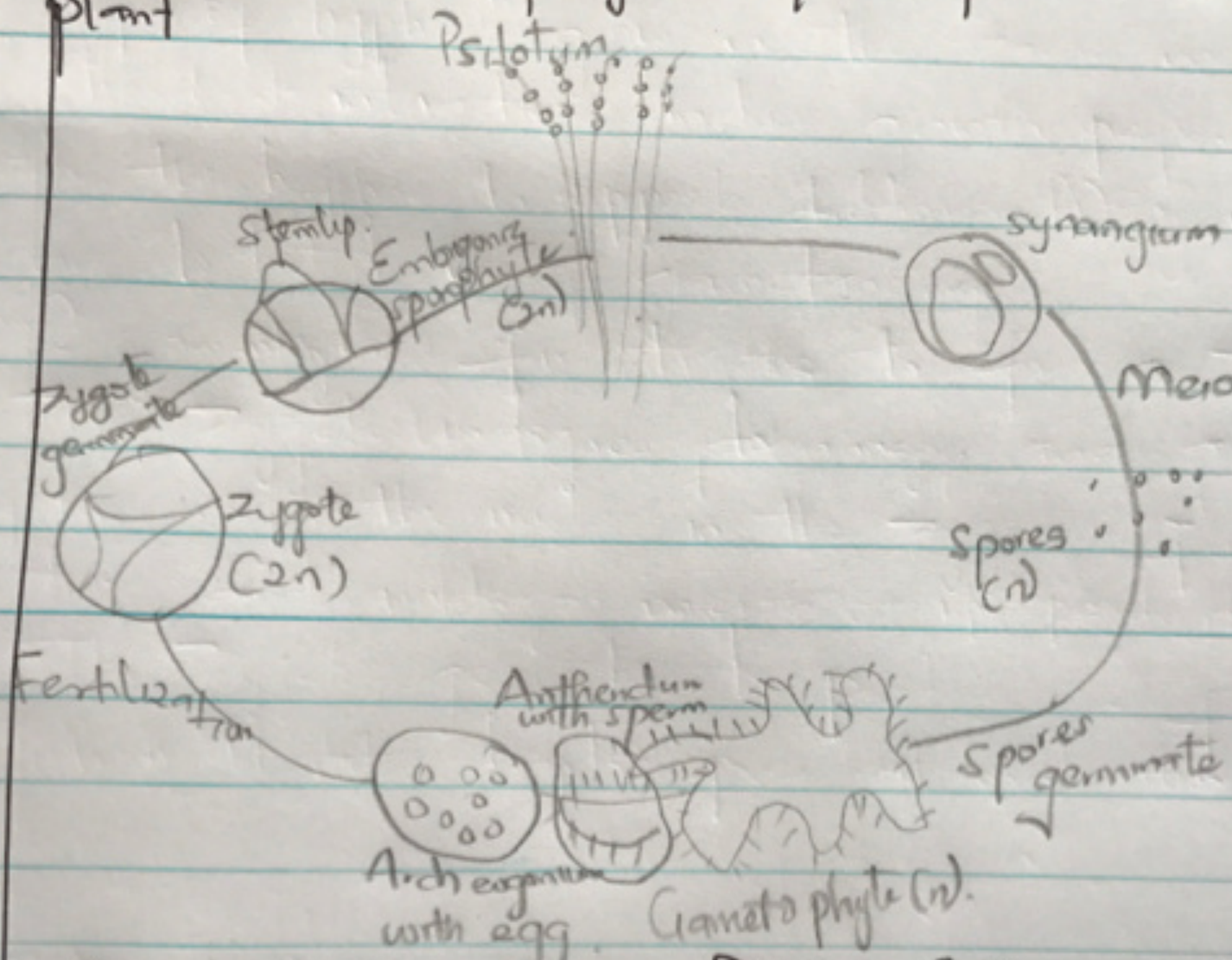
(5) - Eustele : This is the vascular organization found in herbaceous dicotyledonous plant in which the vascular bundles are disorde, concentric collateral bundle of xylem & phloem

- Atactostele : This vascular organization is found in grasses & monocotyledonous plants. Here, vascular bundles are scattered

- Siphonostele : This is found in more advanced vascular plants eg fern. It is a stele, made up of a cylinder enclosing a parenchymatous pith

Dictyostele : This is the conducting cylinder found in the siphonostele of advanced vascular plants

(6) Illustrate the lifecycle of a primitive vascular plant



A real life cycle of Psilotum (A primitive vascular pl