

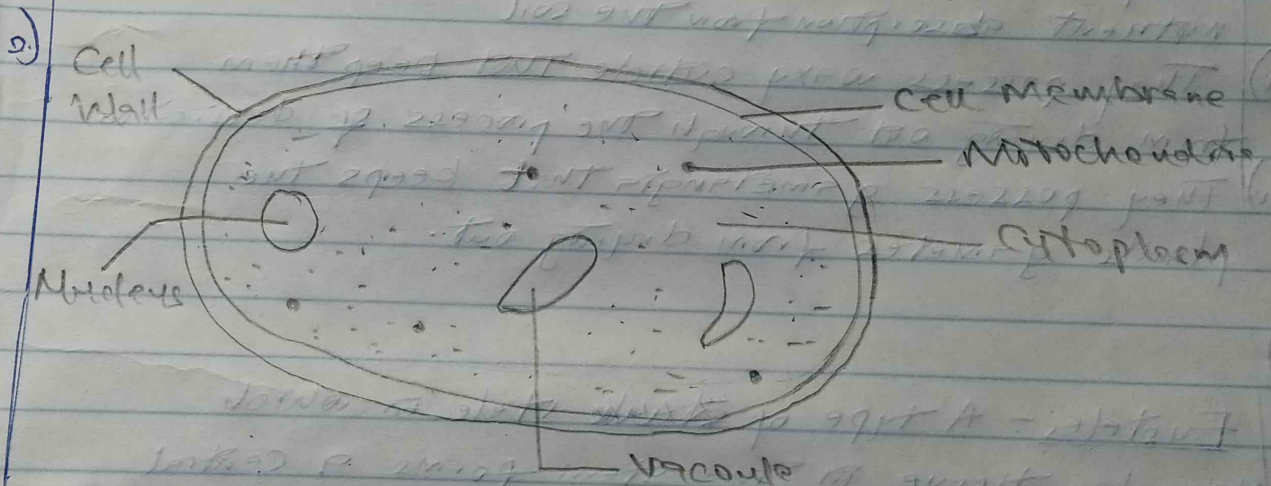
Ezenwa, Cynthia Oluson

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BIO 102

MBBS

- 1)
- a) Fungi are responsible for the decay of organic matter
- b) Some fungi are parasites to some certain horrible obnoxious pest and therefore constitute important biological control agent in regard to such pest.
- c) Fungi; e.g yeast are important in food industry. Many fungi species are the spoilage of wood, food, paper, etc
- d) Fungi are very important to the entire terrestrial ecosystem in material cycling and to man
- e) Fungi are responsible for the recycling of nutrients in various cycles.



### Cell Structure of A Unicellular Fungus

- 3)
- In fungi, sexual reproduction often occurs in response to adverse environmental conditions
- Two mating types of hyphae grow in the same medium
- A chemical interaction between them causes growth perpendicular to the hyphae in opposite directions, so they can meet with one another

- The gametes are delimitated by a wall just as the nuclei are isolated in differentiated sex organs called gametangia (plural)
- The gametangia fuse in a process called plasmogamy and together they form a zygote which may undergo dormancy for a period of time
- The nuclei in the zygote fuse in two's and undergo meiosis independently, it then moves on to germinating under favorable conditions so as to liberate haploid spores at maturity through the production of a fruiting.
- Therefore there are three stages which includes: plasmogamy, karyogamy and meiosis

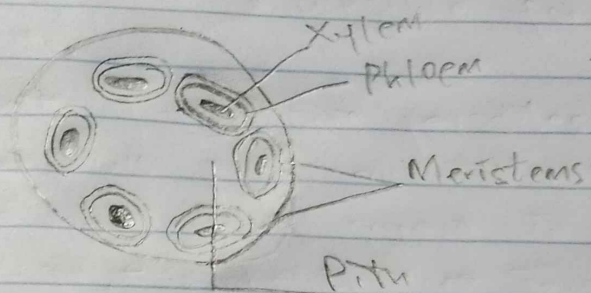
4) Bryophytes survive via the following;

- i) They possess definite structures for water and nutrient absorption from the soil
- ii) They possess waxy cuticle that keep them from drying out through the process of desiccation
- iii) They possess gametangia that keeps the plants gametes from drying out.

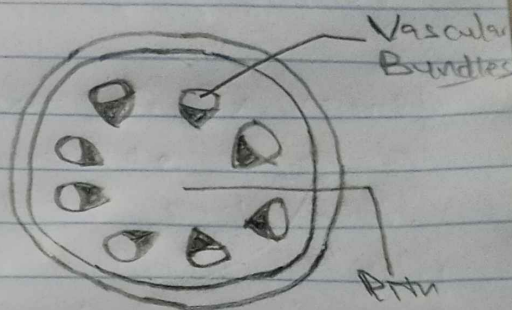
5)

- a) Eustele: A type of ~~stere~~ stele in which vascular tissue in the stem forms a central ring of bundles around a pith. The vascular bundles are discrete, concentric collateral bundle of xylem and phloem.
- b) Atactostele: A type of stele found in Monocots in which the vascular tissue in the stem exists as scattered bundles
- c) Dactyostele: A type of stele in which the vascular cylinder is broken up into a longitudinal series or network of vascular strands around a pith

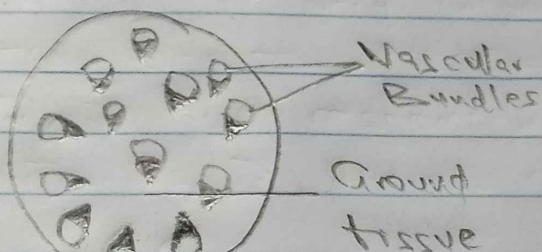
d) Siphonostele : A type of stele in which the vascular tissue in the stem forms a cylinder surrounding a central pith and possessing leaf gaps



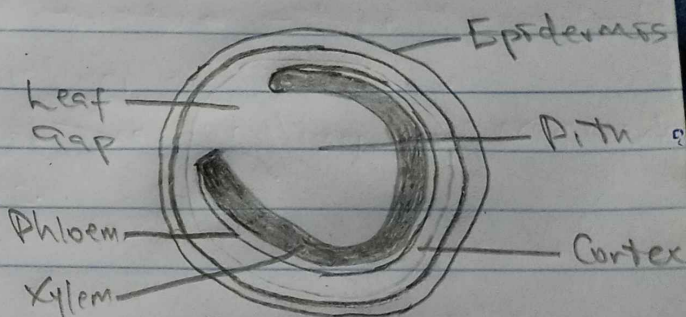
Dictyostele



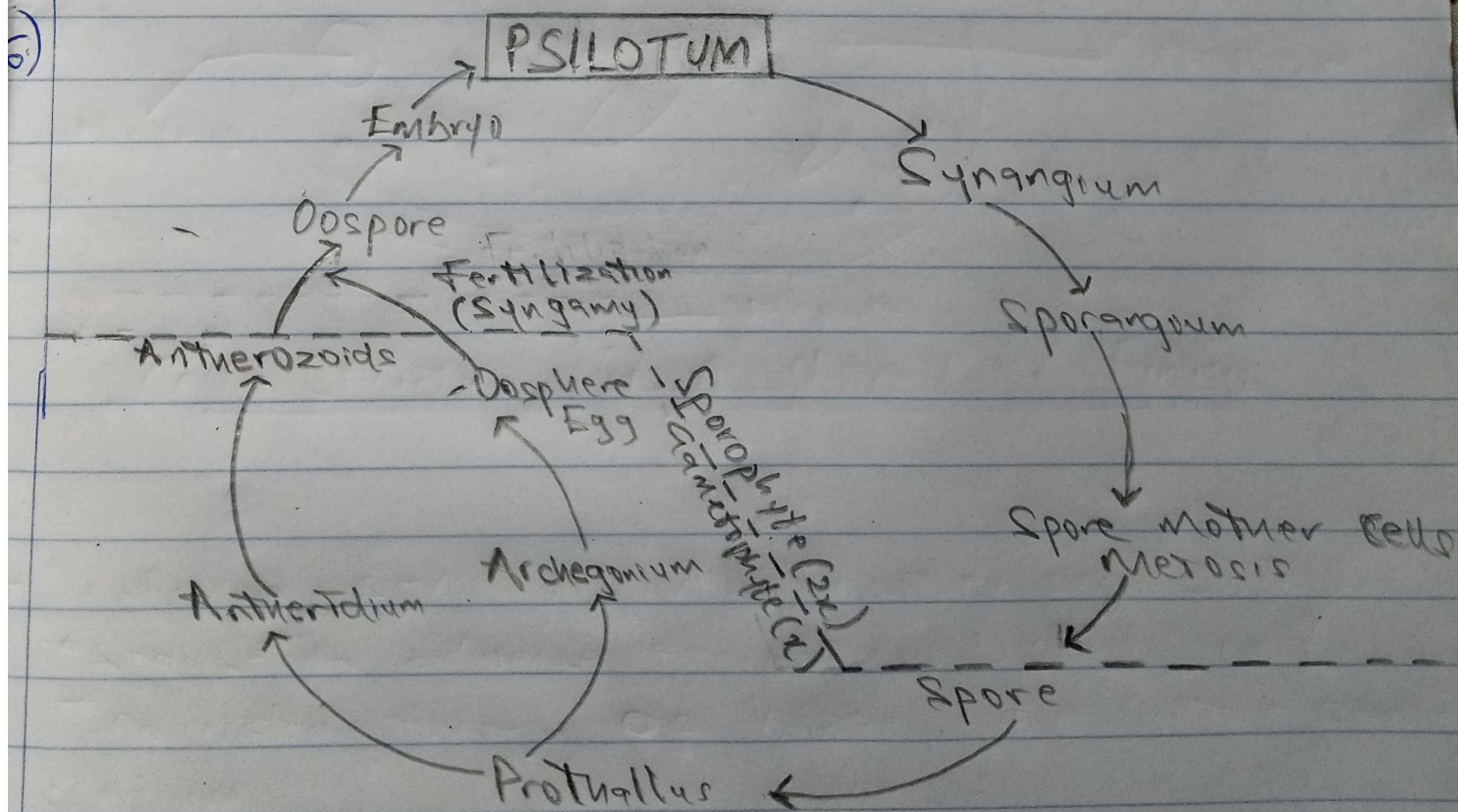
Eustele



Atactostele



Siphonostele



Life Cycle of A Primitive Vascular Plant