

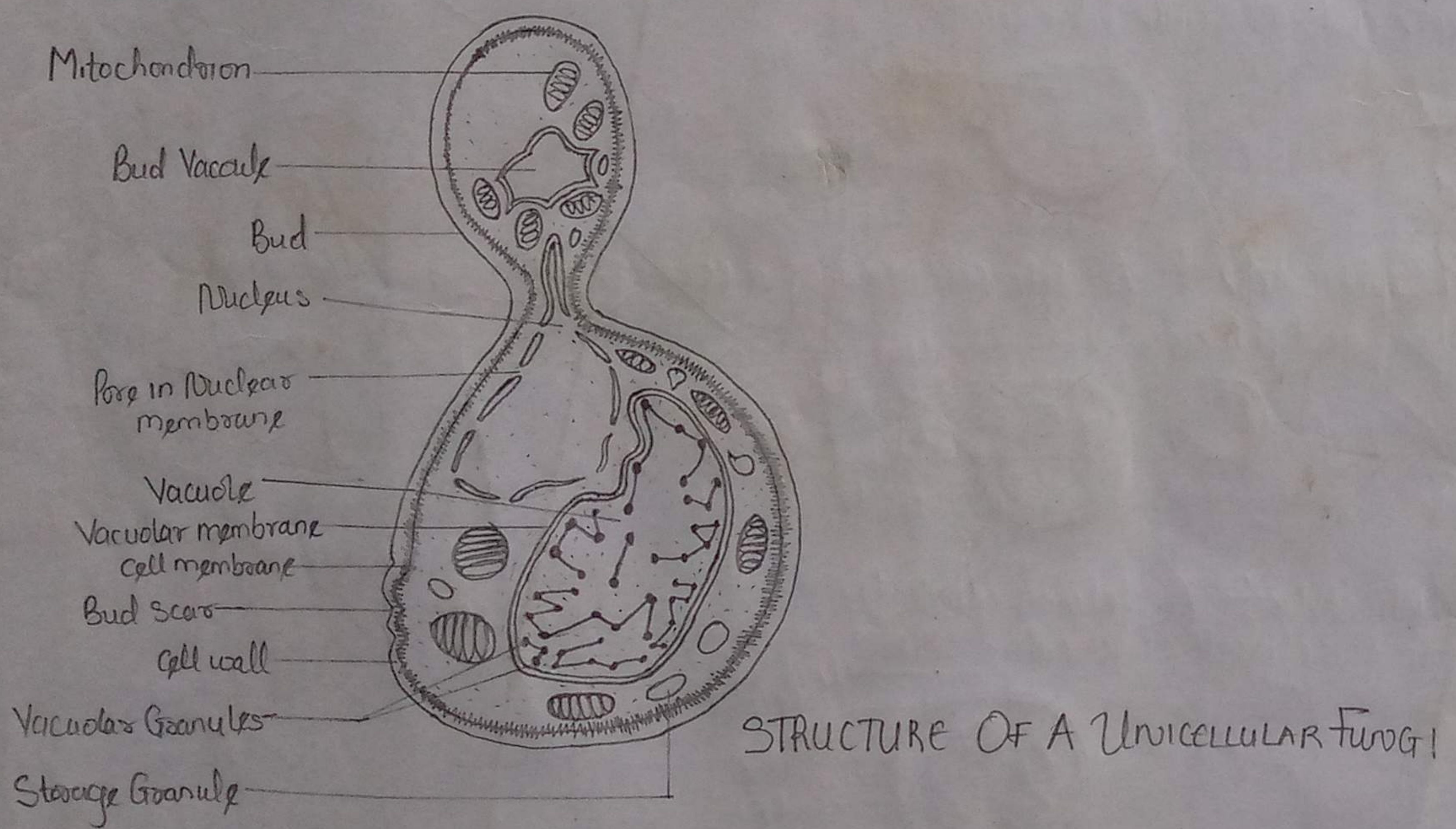
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 Course: Biology 102
 Dept: MBBB
 Matric no: 19/Mhs 01/2019

Assignment

① How are fungi important to mankind?
Soln

They influence the well-being of human population on a large-scale because they are part of the nutrient cycle in ecosystems. They also have other ecosystem uses, such as pesticides, they can be used as food, medicines etc.

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



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

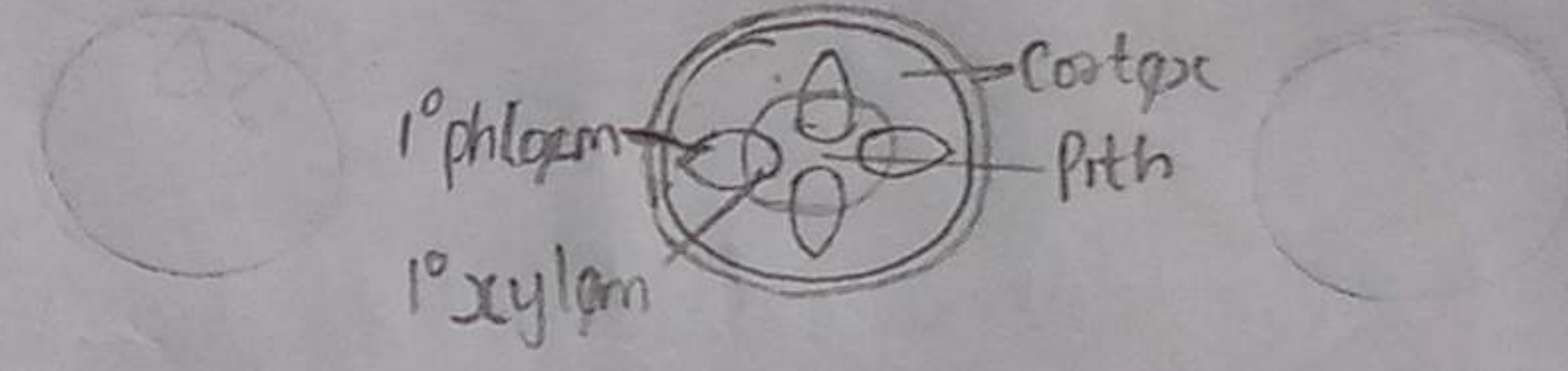
Sexual reproduction in the fungi consists of three sequential steps: Plasmogamy, Karyogamy, and meiosis. The diploid chromosomes are pulled apart into two daughter cells, each containing a single set of chromosomes (a haploid state).

④ How do Bryophytes adapt to their environment
Soln

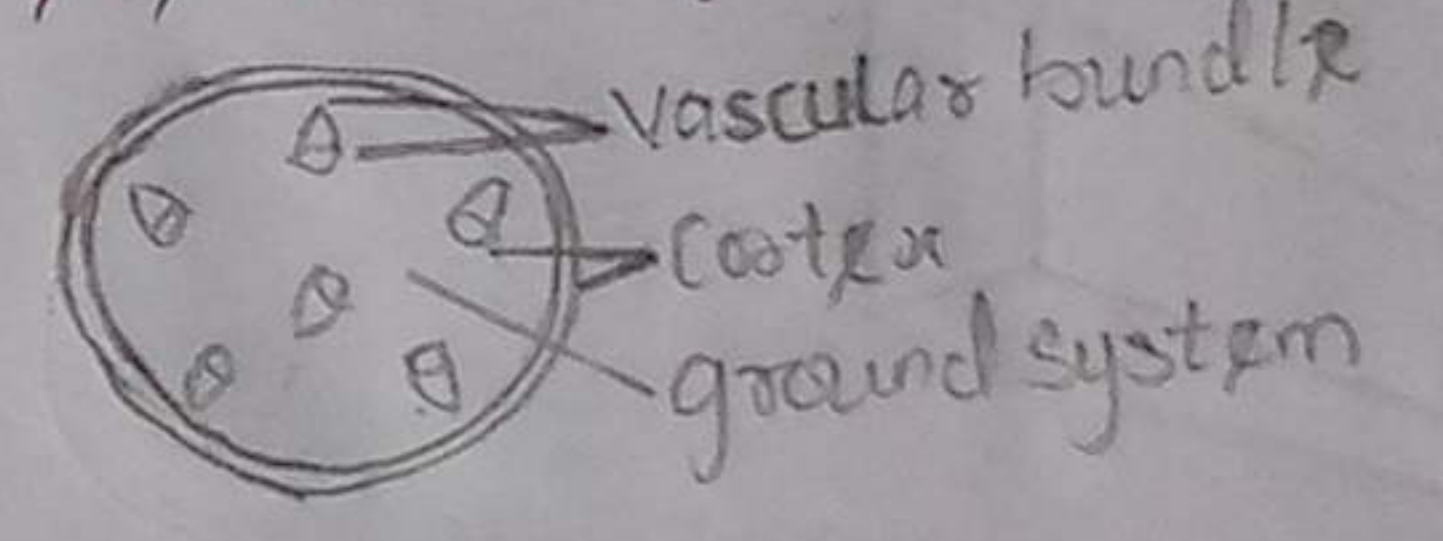
The waxy cuticle helped to protect the plant tissue from drying out and the gametangia provided further protection against drying out specifically for the plants gametes

⑤ Describe with illustration the following terminologies: (a) eustele (b) atactostele (c) siphonostele (d) dictyostele
Soln

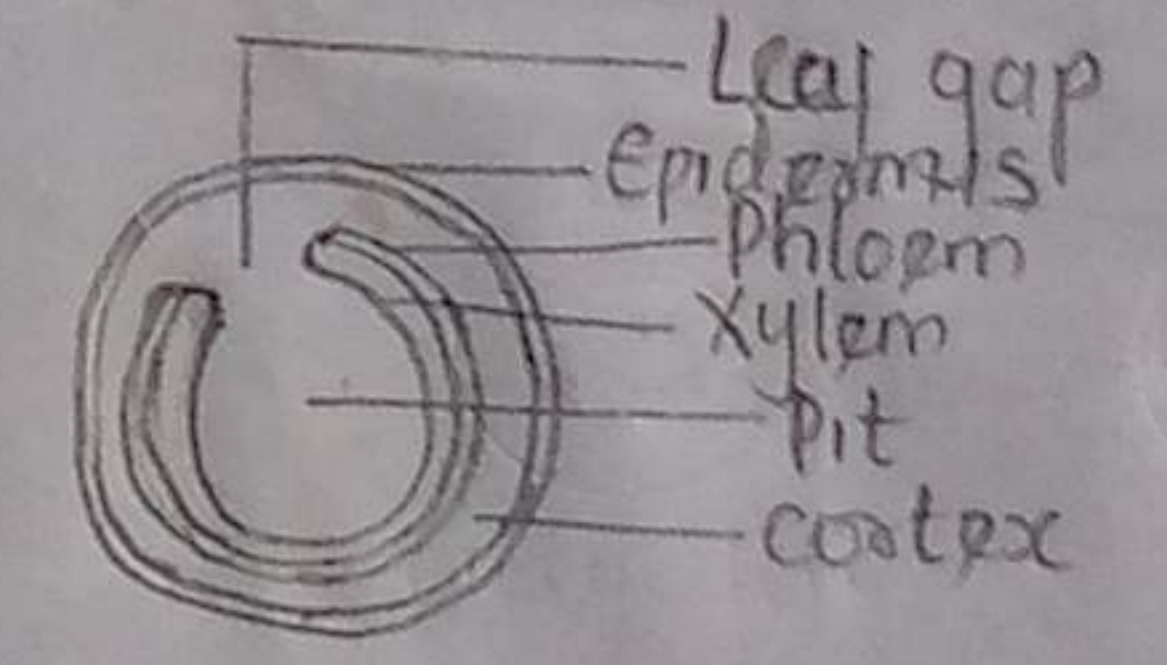
(a) Eustele - It is the typical vascular cylinder of a dicotyledonous plant or a gymnosperm, consisting of a ring of collateral bundles of xylem, cambium, and phloem



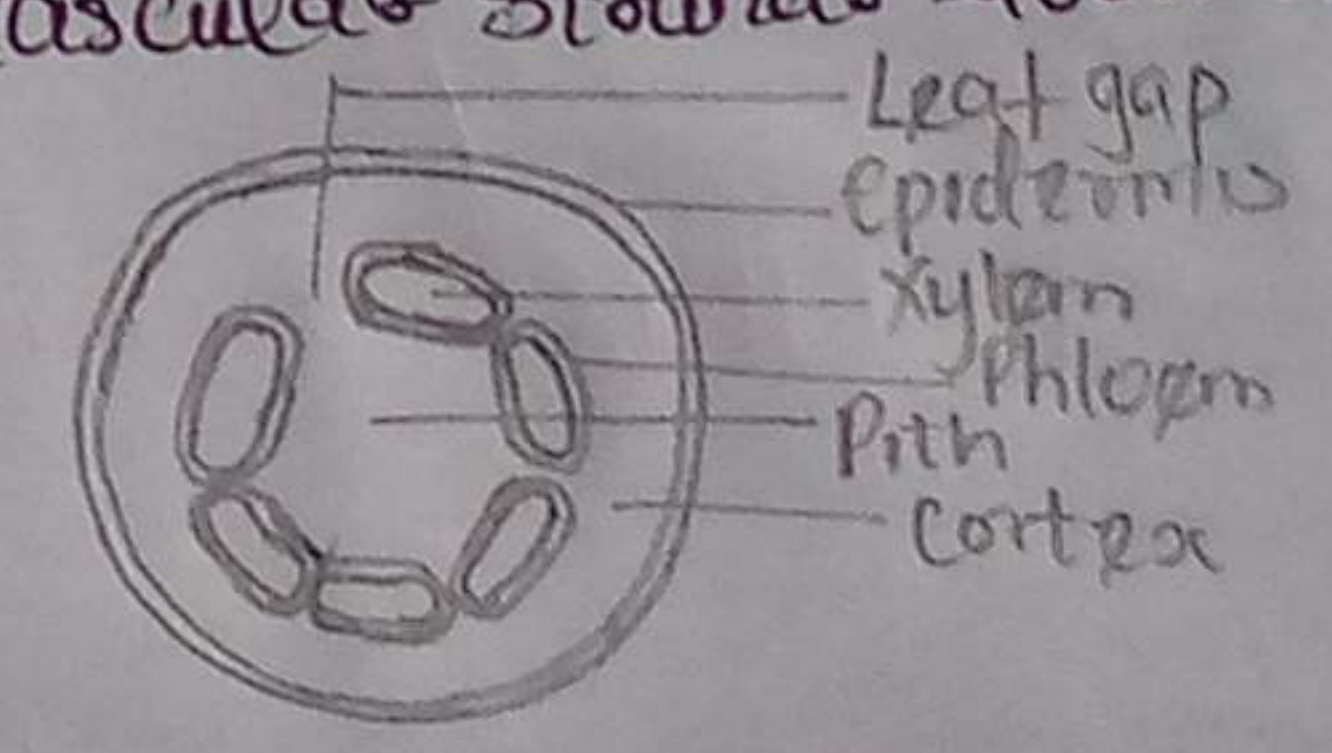
(b) Atactostele - A type of eustele, found in monocots, in which the vascular tissue in the stem exists as scattered bundles



(c) Siphonostele - A stele consisting of a core of pith surrounded by concentric layers of xylem and phloem



(d) Dictyostele - A stele in which the vascular cylinder is broken up into a longitudinal space or network of vascular strands around a central pith



⑥ Illustrate the life cycle of a primitive vascular plant
Soln

