

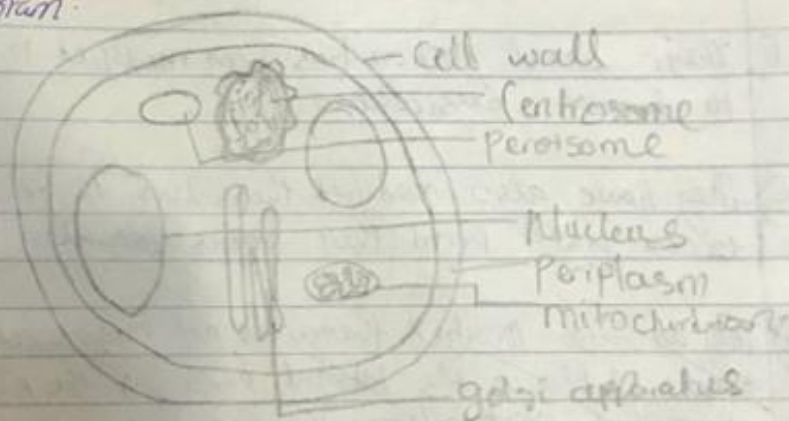
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MBBS, MTS, 19/11/2019/389.  
Biology Assignment.

Answers:

① How are fungi important to mankind?

Fungi are important to human life because they influence the well-being of human population on a large scale why because they are part of the nutrient cycle in ecosystems. They help or are often responsible for the mediation of decay of organic matter. Also some forms of fungi e.g. yeast are important in food industries and some fungi are used or consumed as food e.g. mushrooms. and it also serves as pesticide to some parasites. It can also be used as medicine.

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



A Yeast Cell

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

Rhizopus stolonifer - this occurs when two mating

types of hyphae grow in the same medium. Chemical interaction in the two mating types of hyphae induces growth perpendicular to the hyphae in opposite directions. Their growth are therefore delimited by a wall

such that many nuclei are isolated in what is called gametangium.

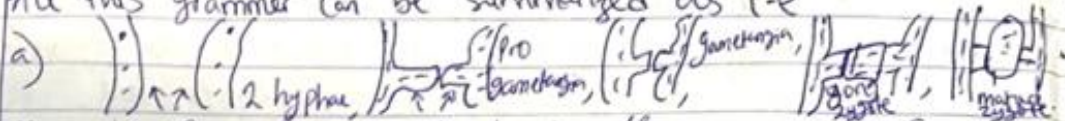
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The 2 gametangia fuse (plasmogamy) and a zygote is formed which may undergo prolonged stage of rest. The zygote nuclei fuses in 2's and goes on to undergo meiosis independently.

The zygote germinates under favourable conditions to produce a fruiting which at maturity liberates the haploid spores.

∴ all this grammar can be summarized as i-e



4. How do Bryophytes adapt to their environment?

a) They have definite structures for water and nutrient absorption from the soil.

b) Their aerial portion has been modified to be able to survive desiccation.

c) They have also modified themselves to be able to eliminate excess water from their bodies.

d) They are also modified themselves, not only exchange of gases between the internal parts of the plant and the atmosphere but also therefore openings are available on the aerial parts of the plant.

5) Describe the illustration of the following terminologies.

a) eustele: A type of Siphonostele, the vascular tissue in the stem forms a central ring of bundles around a pith.

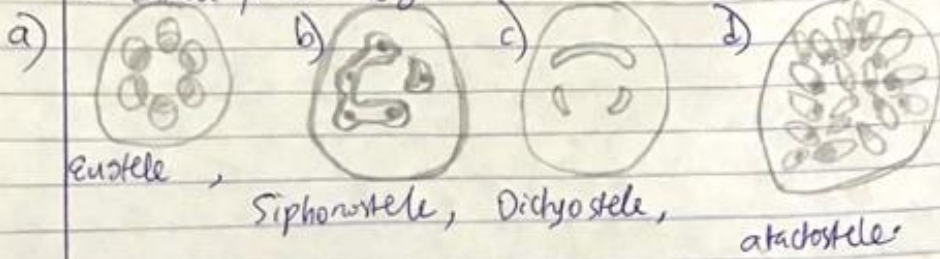
b) atactostele: A type of eustele, found in monocots, in which the vascular tissue in the stem exists as scattered bundles.

c) siphonostele: A stele consisting of a core of pith surrounded by concentric layers of xylem and phloem. It is a cylinder surrounding the pith, as in the stems of most

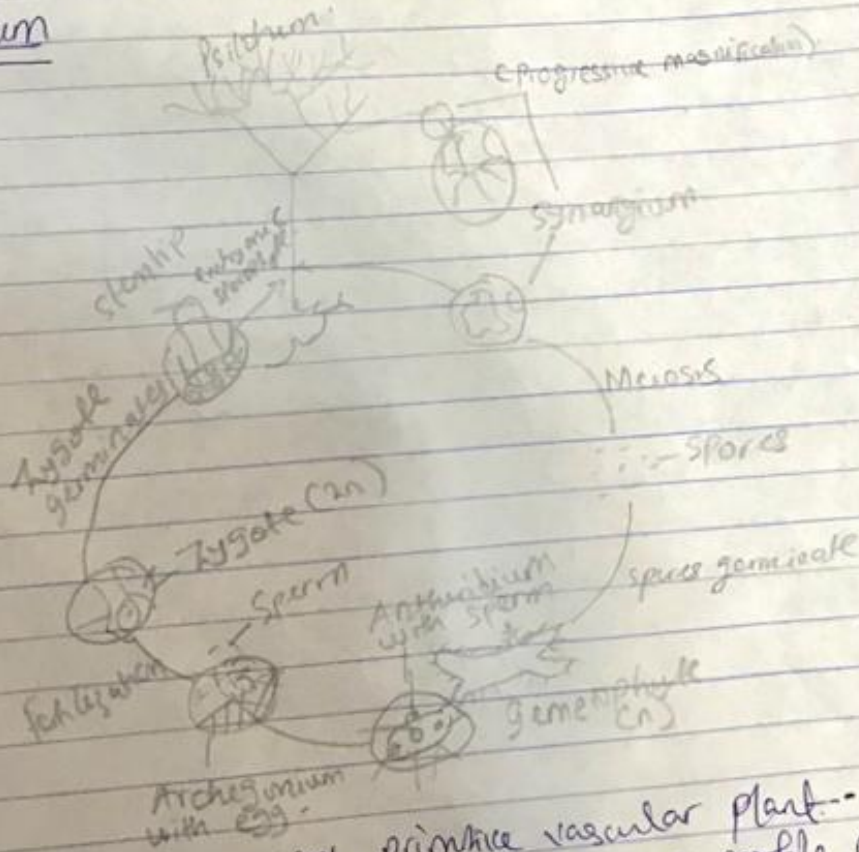
# BUBA SAAO -

Ferns and other seedless vascular plants

d) **Dichyo stele**: A stele in which the vascular cylinder is broken up into a longitudinal series or network of vascular strand around a central pith. e.g.



6) Illustrate the life cycle of a primitive vascular plant Psilotum



Note: Psilotum is a very primitive vascular plant. Gametophytes are saprophytic, sperms are mobile and are released by the antheridia and goes to the or swims to the archegonia and results in a zygote which subsequently develops into a sporophyte.