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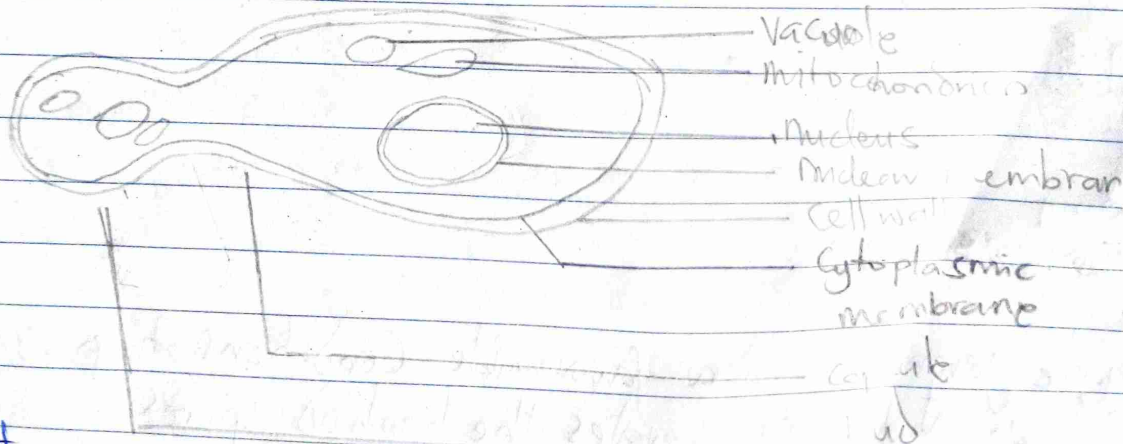
19/MHS01/395
MBBS

1) Importance of fungi to Mankind
a) Yeast is Importance in baking Process.
b) Fungi is Used as food e.g Mushrooms
c) Fungi can be Used as biological control agent.
d) Mycology can be Used in the medical and Veterinary mycology to deal with fungal diseases and infections in human beings and animals e.g skin diseases such as ringworm and dermatitis.

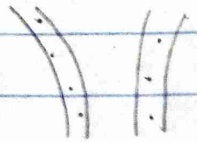
2)



The structure of Yeast (saccharomyces cerevisiae)

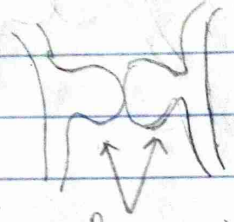
3) Sexual reproduction in Filamentous fungi (Rhizopus Stolonifer)

i) Sexual reproduction occurs when two mating types of hyphae grow in the same medium.

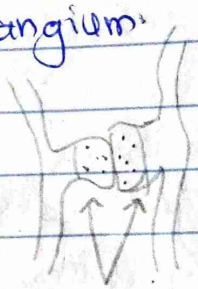


Two Hyphae

ii) 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 a gametangium.

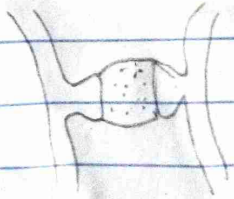


Progametangia



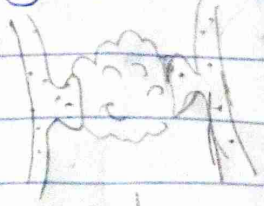
Gamentangia

iii) The two gametangia fuse (plasmogamy) and a zygote is formed which may undergo dormancy or resting stage. The nuclei in the zygotes fuse in twos and undergo meiosis independently



Young Zygospore

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



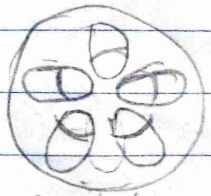
Mature Zygospore

4a) They have definite structures for water and nutrient absorption from the soil; Therefore the plant body is divided into (an aerial potion and a Subterranean potion).

b) The aerial portion being exposed to the atmosphere demands some modifications that prevents excessive loss of water through the body Surface (ie Desiccation)

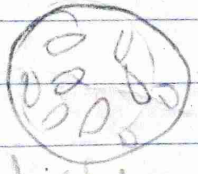
c) Some other modifications that permit elimination of excess water from the plant body and not only exchange of gases between the internal parts of the plant surface and the atmosphere therefore openings are available on the aerial parts of the plant.

5a) ensteles: Vascular bundles are discrete, ~~Concrete~~ Concentric. Collateral bundles of xylem and phloem.



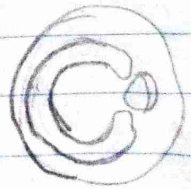
enstele

atactostele: The Vascular bundles are scattered. The nature of the Vascular Supply to leaves is also note worthy element of the Vascular System

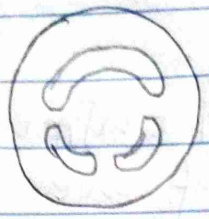


atactostele

Siphonostele: The stele is a cylinder enclosing a parenchymatous pith

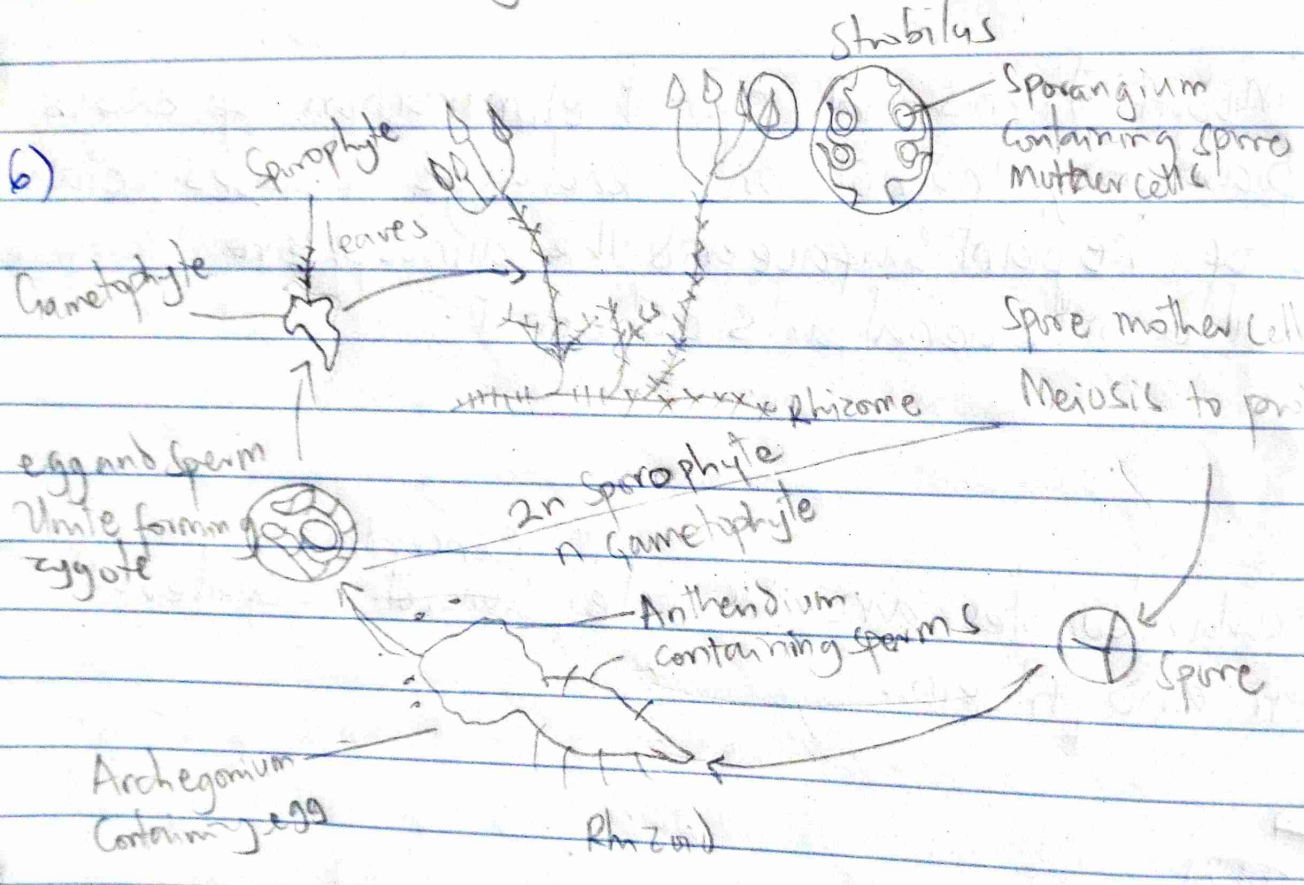


d) Dictyostele – Vascular supply to leaves is associated with leaf gaps and the conducting cylinder is dissected one



dictyostele

6)



Life Cycle of a lycopodium