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COURSE: BIO 102

DEPARTMENT: MBBS

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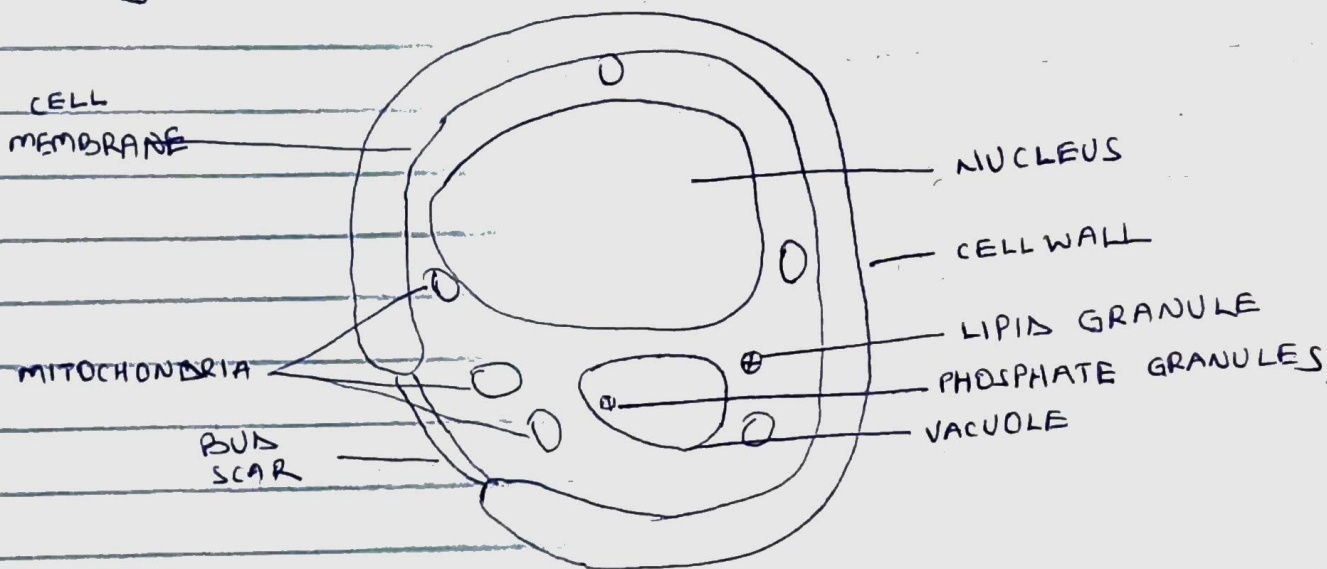
DATE: 11<sup>th</sup> MAY 2020

## ANSWER TO ASSIGNMENT 11

1. Importance of fungi to mankind

- Yeast is important in food industries like confectioneries
- mushrooms serve as food to man
- Fungia are responsible for the mediation decay of dead organic matter.

2.



## DIAGRAM OF THE CELL STRUCTURE OF A UNICELLULAR FUNGUS

3. Sexual Reproduction in Rhizopus stolonifer

- First, 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 growths are delimited by the wall just so the nuclei are isolated in differentiated sex organs called gametangia.
- The gametangia fuse in a process known as plasmogamy

and together they form a zygote which may undergo dormancy for a period.

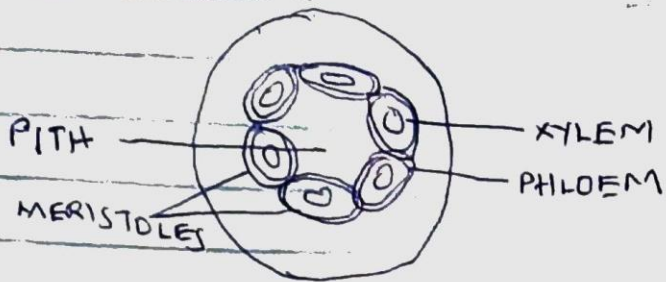
- v. The nuclei in the zygote fuse in ~~an~~ ~~process~~ twos and undergo meiosis independently and then it moves on to germinating under favourable conditions so as to liberate haploid spores at maturity through the production of a fruiting.
- vi. In summary, sexual reproduction in fungi consists of three stages; plasmogamy, karyogamy and meiosis.

4. Bryophytes are able to survive in their habit due to the following:
- They possess definite structures for water and nutrient absorption from the soil.
  - They also possess a waxy cuticle that keeps them ~~alive~~ hydrated through the process of desiccation.
  - They possess gametangia that keep the plants from drying out.

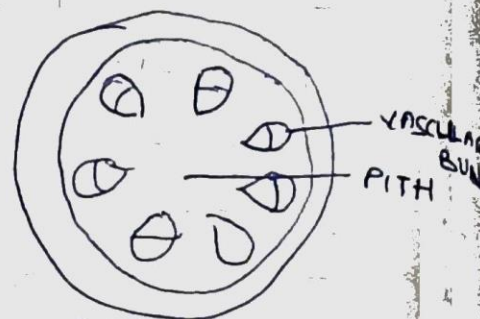
### ~~5~~ ~~A~~ ~~F~~

- 5i. Eustele: a type of stele in which the vascular tissue in the stem forms a central ring of bundles around a pith. The vascular bundles are discrete, concentric collateral bundles of xylem and phloem.
- ii. Atactostele: this is found in monocots, in which the vascular tissue in the stem exists as scattered bundles.
- iii. Dichogostele: a type of stele in which the vascular cylinder is broken up into a longitudinal series or network of vascular strands around a pith.

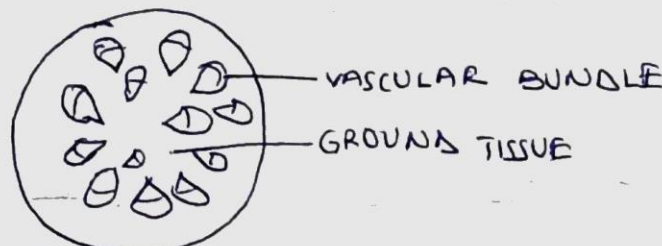
DIAGRAMATIC ILLUSTRATION OF THE DIFFERENT STELES



Dicotylete



Eustele



Atactostele

b. Lifecycle of a primitive vascular plant (psilohum)

