

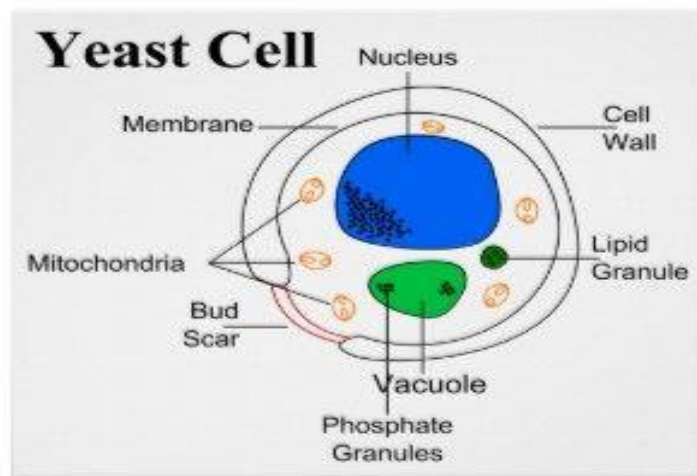
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MATRIC NUMBER: 19/MHS06/027

DEPARTMENT: MEDICAL LABORATORY SCIENCE

BIO 102 ASSIGNMENT

1. Fungi are important to man for the following reasons;
 - i. They are responsible for the mediation of the decay of dead organic matter.
 - ii. Yeast is important in food industries like bakeries and yoghurt making factories.
 - iii. Mushrooms are eaten by man.
 - iv. Some fungi are parasites to obnoxious pests of man.
2. **CELL STRUCTURE OF A UNICELLEULAR FUNGUS**



3. Sexual reproduction in a filamentous fungi like *Rhizopus stolonifera* undergoes the following steps;
 - i. First, two matting types of hyphae grow in the same medium.
 - ii. A chemical interaction between them causes growth perpendicular to the hyphae in opposition directions, so they can meet with one another.
 - iii. The growths are delimited by a wall just so the nuclei are isolated in differentiated sex organs called gametangia (plural)
 - iv. The gametangia fuse in a process called plasmogamy and together they form a zygote which may undergo dormancy for a period.
 - v. The nuclei in the zygote fuse in twos and undergo meiosis independently, it then 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 habitat via the following;
 - i. They possess definite structures for water and nutrient absorption from the soil.
 - ii. They also possess a waxy cuticle that keeps them from drying out through the process of desiccation.
 - iii. They possess gametangia that keep the plants gametes from drying out.

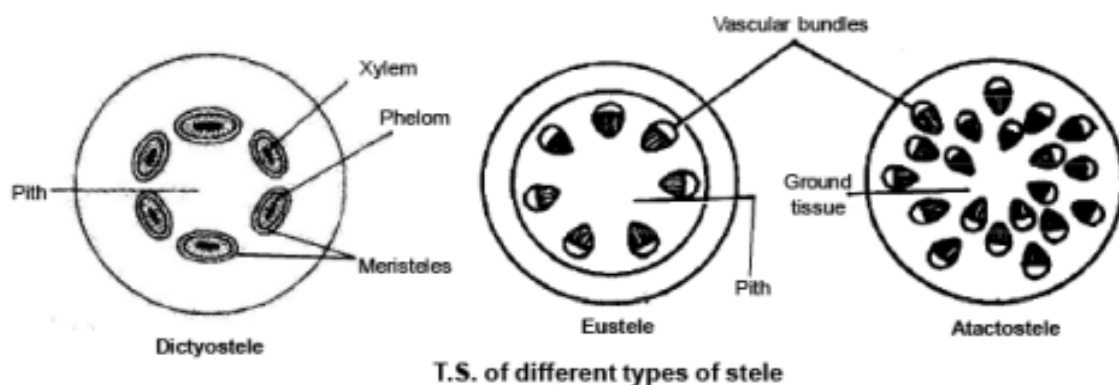
5. Eusteles: In the arrangement below, the primary vascular tissue consists of vascular bundles, usually in one or two rings around the pith. In addition to being found for in stems to eustele appears in the roots of improved flowering plant.

A Tactostele: A type of esutole found in monoioits, in which the vascular tissue in the stem exist in different bundles.

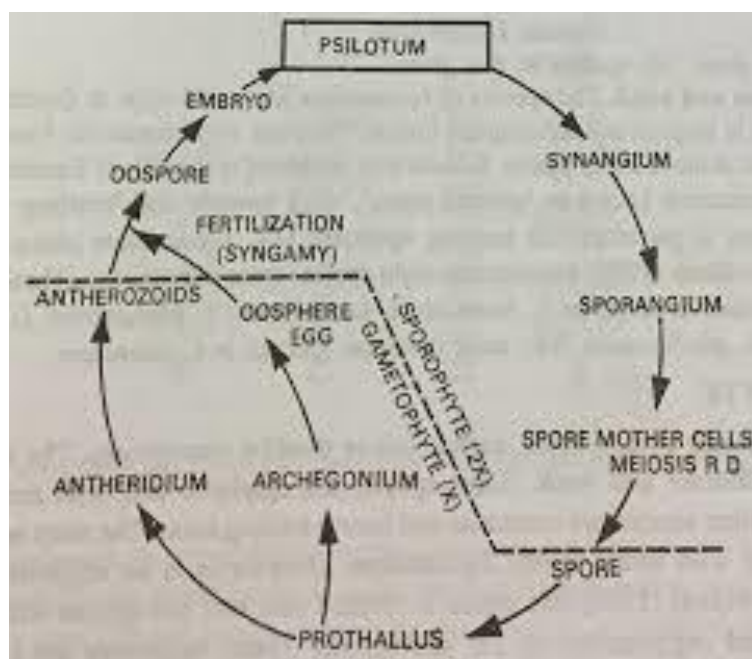
Siphonostele: They have a region of ground tissue called the pith external to xylem. The vascular strand comprises a cylinder surrounding the pith. They often have interruptions in the vascular strand where leaves originate (called leaf gaps).

Dictyostole: If multiple gaps in the vascular cylinder exist in anyone transverse section. The numerous leaf gaps and leaf traces give dictyostole, the appearance of many isolated islands of xylem surrounded by phloem. Each of the apparently isolated units of a dictyostole can be called a mexistele. This type of stele is only found in stems of ferns.

DIAGRAMMATTIC ILLUSTRATIONS OF THE DIFFERNET STELES



6. The life cycle of a primitive vascular plant {pteridophytes ferns}. Is split between free-living gametophytes and sporophytes phases. The gametophytes are generally simple in structure, containing egg producing archogonium and sperm producing antheridium.



LIFE CYCLE OF A PRIMITIVE VASCULAR PLANT