

NAME: EZEKWUECHE MUNACHUKWU BELUOLISA

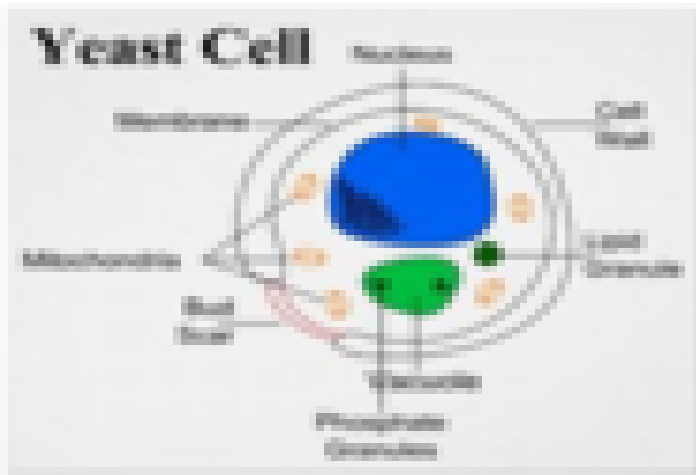
MATRIC NUMBER: 19/MHS01/167

DEPARTMENT: Medicine and Surgery

BIO 102 ASSIGNMENT

1. Fungi are important to man by the following reasons:
 - i. They are responsible for the decay of dead organic matter.
 - ii. Fungi like yeasts are important in food industries like bakeries and yogurt making factories.
 - iii. Mushrooms are used for food by man.
 - iv. Some fungi are parasites to pests, which are harmful to man.

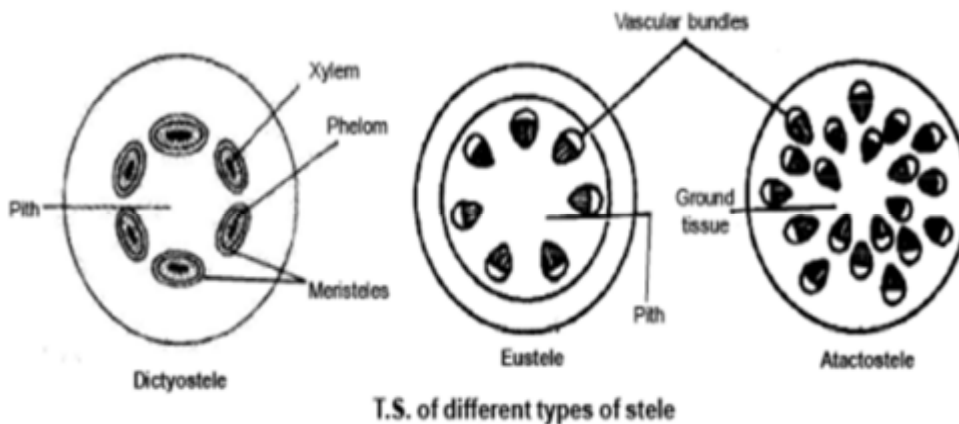
2. A DIAGRAM OF A CELL STRUCTURE OF A UNICELLULAR FUNGUS



3. Sexual reproduction in filamentous fungi like Rhizopus undergoes the following steps;
 - i. The two mating types of hyphae germinate or grow in the same medium.
 - ii. They undergo a chemical interaction which causes them to undergo a growth which is perpendicular to the hyphae in opposite directions, which results to them meeting one another.
 - iii. The growths are delimited by a wall in order for the nuclei to be isolated in differentiated sex organs called gametangia.
 - iv. The gametangia fuse in a process called plasmogamy and together they form a zygote. This zygote may undergo dormancy for a period of time.

- v. The nuclei which is present in the zygote fuse in twos and undergo meiosis independently. It then moves on to germinating under favorable conditions in order to liberate haploid spores at maturity stage through the production of a fruiting.
4. Bryophytes are able to survive in their habitat through the following points below:
 - i. Bryophytes possess definite structures for water and nutrient absorption from the soil.
 - ii. They also possess a waxy cuticle, which keeps them from drying out through the process of desiccation
 - iii. They possess gametangia which keep the plants gametes from drying out.
 5. A. Eusteles: This is 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.
 - B. Atactostele: This is a type of stele found in monocots, in which the vascular tissue in the stem exists as scattered bundles.
 - C. Dictyostele: This is a type of stele in which the vascular cylinder is broken up into a longitudinal series or network of vascular strands around a pith.

Diagrammatic illustrations of the different steles.



6. Life cycle of a primitive vascular plant (psilotum)

