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MATRIC NO.: 19/MHS/011

DEPARTMENT: NURSING

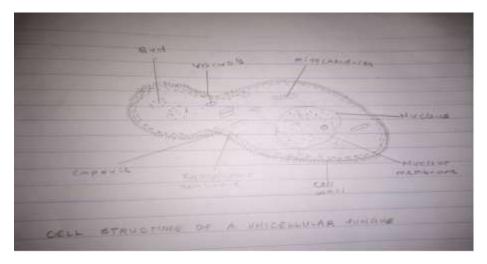
COURSE: BIO 102

ASSIGNMENT

1. How are fungi important to mankind?

Fungi are everywhere in very large numbers—in the soil and the air, in lakes, rivers, and seas, on and within plants and animals, in food and clothing, and in the human body. Fungi are essential to many household and industrial processes, notably the making of bread, wine, beer, and certain cheeses.

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



 Outline the sexual reproduction in a typical filamentous form of fungi. Sexual reproduction in the fungi consists of three sequential stages: plasmogamy, karyogamy, and meiosis. The diploid chromosomes are pulled apart into two daughter cells, each containing a single set of chromosomes (a haploid state).

- 4. How do bryophytes adapt to their environment?
- i. Possession of a waxy cuticle that prevents the body, the zygote, and the embryo from drying out.
- Spores are dispersed by the wind. ii.
- iii. They colonize rocks and convert them to soil.
- Sphagnummoss, or peat moss, is commercially important because of its iv. water-holding capacity
 - 5. Describe with illustration the following terminologies:
 - a.) EUSTELES.
 - A eustele is a stele type characteristic of most seed-bearing plants and a



ferns allies.

b.) ATACTOSTELE

Atactostele is a variation of the eustele, being more complex. That means, it contains numerous vascular bundles, scattering throughout the stem.



c.) SIPHONOSTELE

This is a type of vascular system consisting of a ring of vascular bundles surrounding a central pith. A stele in which the vascular tissue is in the form of a cylinder surrounding the pith, such as the stems of most ferns and other seedless vascular plants.



d.) DICTYOSTELE

A <u>stele</u> that is divided into several strands, called meristeles. A dicty ostele may consist of <u>protosteles</u> (<u>polystele</u> and <u>plectostele</u>) or <u>siphonosteles</u>.



6. Illustrate the life cycle of a primitive vascular plant.

