

ARUM IKENE JOSEPH

19/MHS01/102

B10102

ASSIGNMENT.

Question 1

Importance of fungi to Mankind.

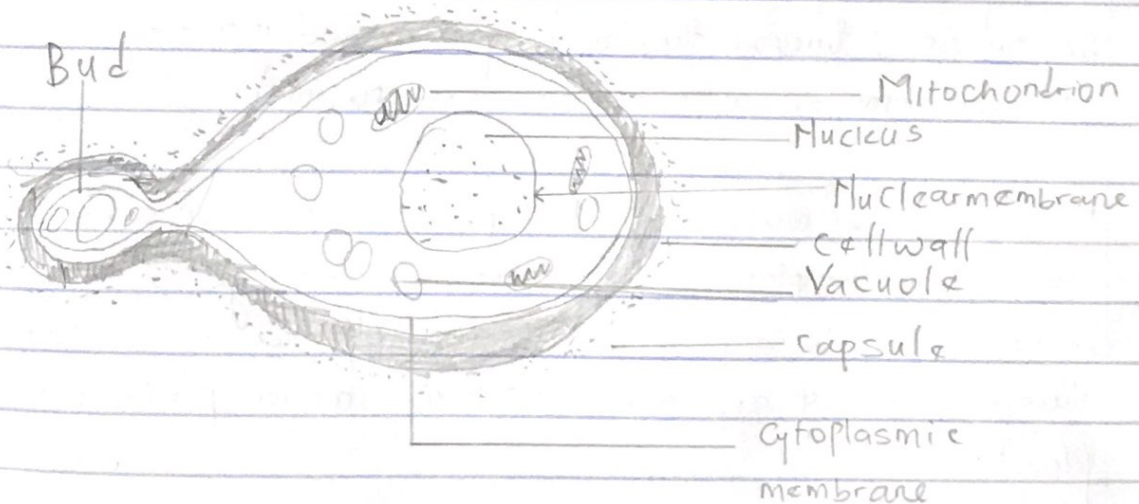
- i) They are responsible for the mediation of decay of organic matter
- ii) They are important in food industry e.g. Yeast
- iii) They are responsible for producing important antibiotics.
- iv) They mediate the spoilage of wood, food, clothes and paper.
- v) Some are parasite to pests.

Question 2

Unicellular fungus — Yeast (*Saccharomyces cerevisiae*)

Cell structure of yeast.

The cell structure is very simple, though the organism is one of the most advanced fungal forms from the point of view of its spore.



Cell structure of Yeast (*Saccharomyces cerevisiae*)

Question 3

Sexual reproduction in a filamentous fungi:

(Rhizopus Stolonifer)

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

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

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

Th Question 4

Th. How do Bryophytes adapt to their environment.

i) They have definite structures for water and nutrient absorption from the soil; therefore the plant body is divided into two (an aerial portion and a subterranean portion).

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

Question 5

a) **Eustele** :- This is where vascular bundles are discrete, concentric collateral bundles of xylem and phloem herbaceous dicotyledonous plants.



b) **Atactostele** :- The vascular bundles are scattered in grooves and many monocotyledonous plants.



c) **Siphonostele** :- The stele is a cylinder enclosing a parenchymatous pith in more advanced vascular systems.



d) **Diactyostele** :- In siphonostele, vascular supply to leaves associated with leaf gaps and the conducting cylinder is a discreted one.

Question 6. Life Cycle of a Primitive Vascular plant :- Psilotum.

