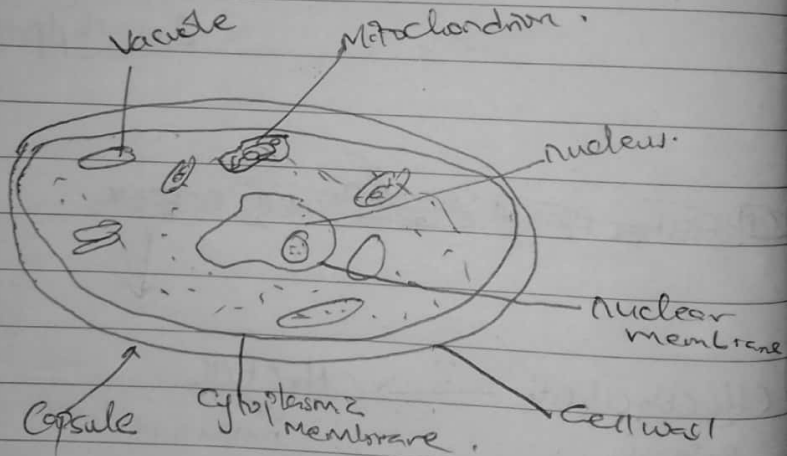
Assignment.

1. (a) They important to the entire ecosystem.
   (b) They decompose decay organic matters.
   (c) It is useful in industries for fermentation [yeast]
   (d) They are useful to human health [mushroom].

2.



Digram of unicellular fungi (yeast).

(3) - Sexual reproduction occurs when two mating types of hyphae grow in the same medium - Chemical interaction in the two mating types of hyphae induces growth perpendicular to the hyphae in opposite direction. These growths are delimited by a wall such that many nuclei are isolated in what is called 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 pairs and undergo Meiosis independently.

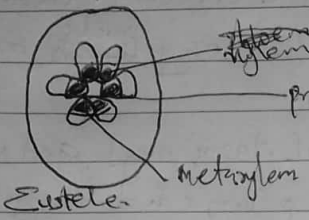
The zygote germinates under favourable condition to produce a fruiting which at maturity liberates the haploid spores.

(4) (a) They have definite structures for water and nutrient absorption from the soil. Therefore the plant is divided into two [a] aerial portion and a subterranean portion.

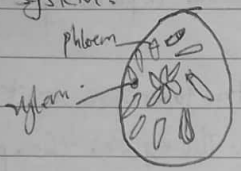
(b) The aerial portion being exposed to the atmosphere demands some modifications that prevents excessive loss of water through the body surface.

(c) 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 opening are available on the aerial parts of the plant.

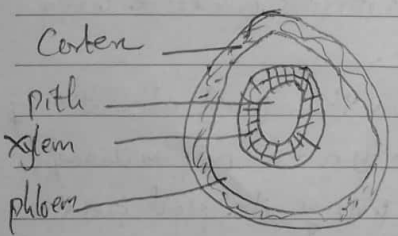
(5) (a) Eustele:- The vascular bundles are discrete. Concentric collateral bundles of xylem and phloem. It is found in herbaceous dicotyledonous plants.



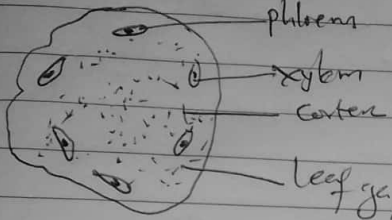
(b) Atactostele:- The vascular bundles are scattered. The vascular system of stem & supply to leaves is also not worthy element of the vascular system.



(c) Siphonostele:- The stele is cylinder enclosing a parenchymatous pith.



(d) Dictyostele: It consist of vascular strands interconnected in such a manner that many given cross section of stem, several distinct bundles can be observed.



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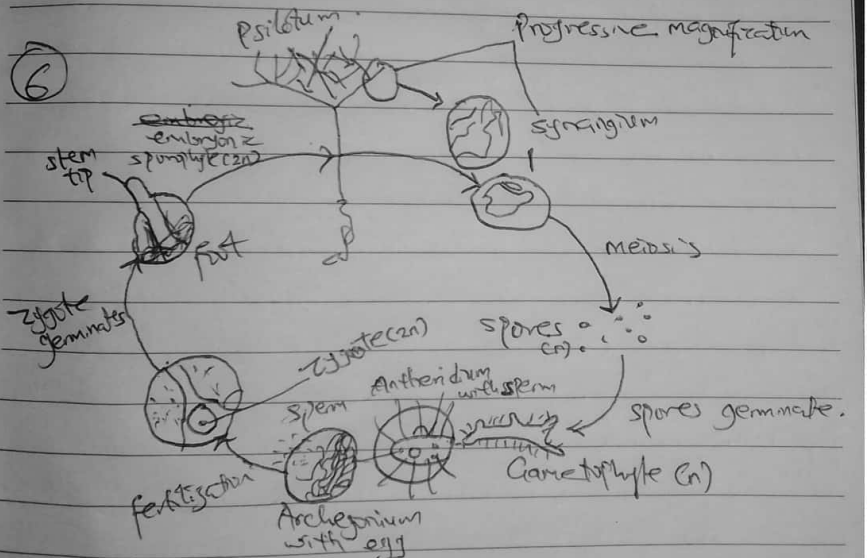

A real life cycle of primitive vascular plant.