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1 (a) Fungi are responsible for the mediation of decay of organic matter.
(b) Fungi are important to the entire terrestrial ecosystem in material cycling and to man.
(c) Fungi e.g yeast (saccharomyces cerevisiae) are important in food industry.
(d)

2 A.

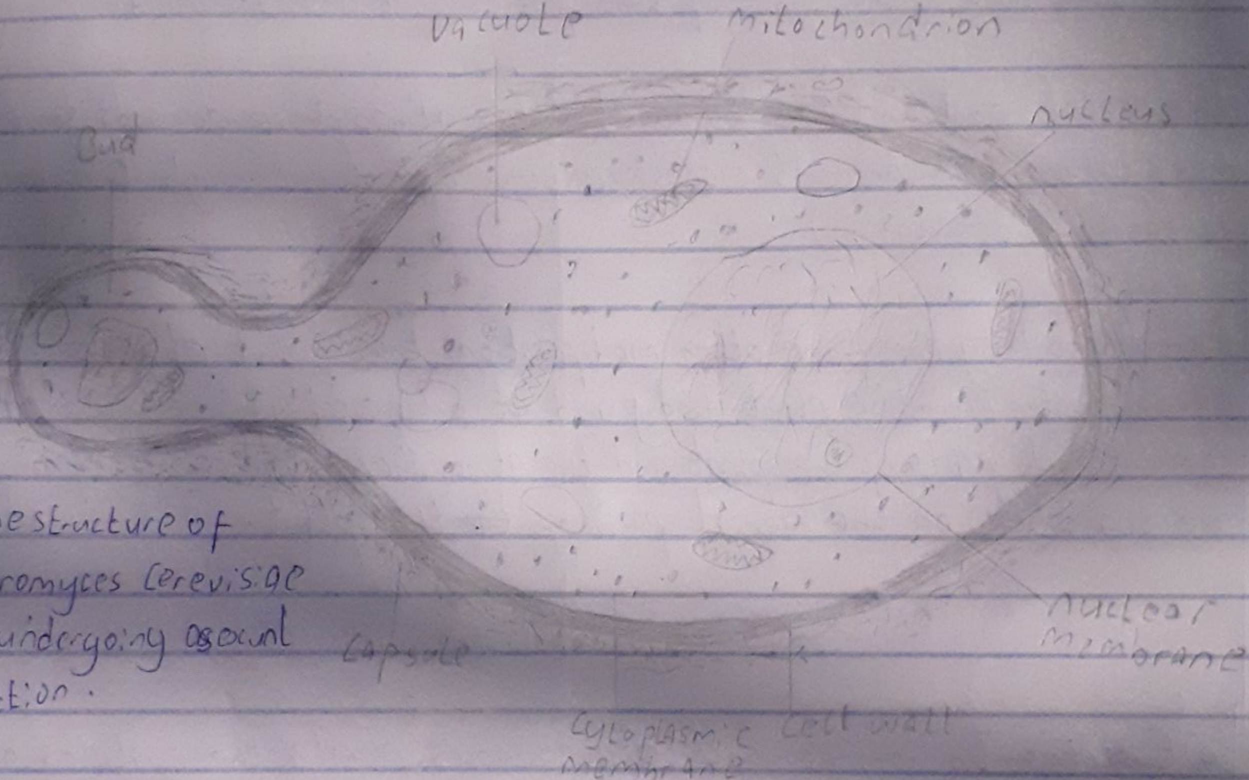


FIG: The structure of saccharomyces cerevisiae (yeast) undergoing asexual reproduction.

3 Sexual reproductions of a typical filamentous form in fungi.
These occurs when two mating types of hyphae grow in the same medium. Chemical interation 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 single stage. The nuclei in the zygotes fuse in twos and undergoes meiosis independently.
The zygote germinates under favourable conditions to produce a fruiting which at maturity liberates the haploid spores.

4 Bryophytes adapt to land habitats by the following ways: 6

(a) They have specific structures for water and nutrient absorption from the soil; therefore the plant body is divided into two (an aerial portion and a subterranean portion). The subterranean portion is the rhizoid and is not a true root as the case of land plants that are advanced.

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

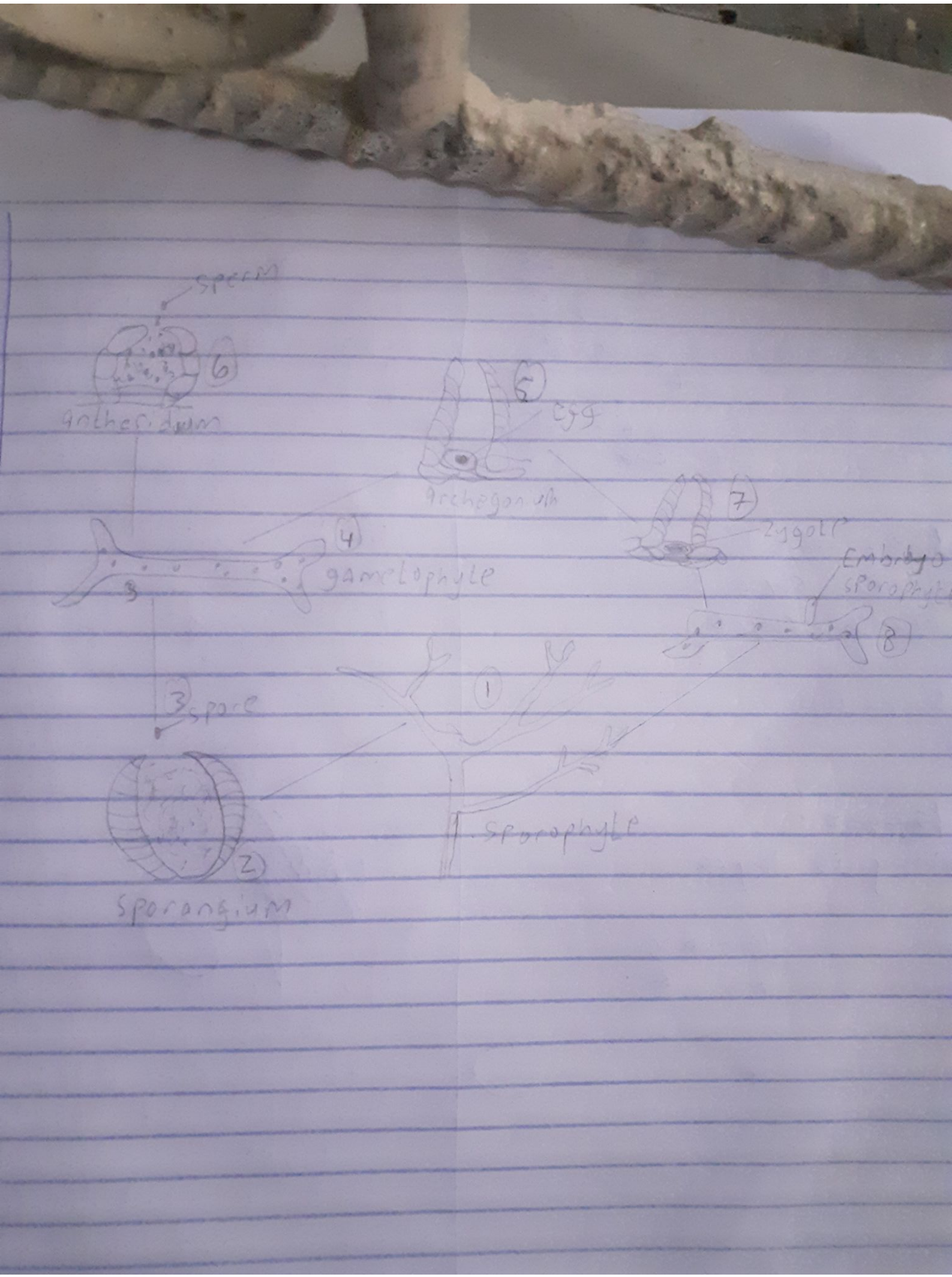
(c) ~~And also~~ They are some other modifications that permit elimination of excess water from the plant body and not only exchange of gases between the internal parts of the plant and the atmosphere therefore openings are available on the aerial parts of ~~the~~ the plant.

5 (a) Eusteles - In herbaceous dicotyledonous plants, the eusteles are vascular bundles are discrete, concentric collateral bundles of xylem and phloem.

(b) Atactostele - In grasses and many monocotyledonous plants, the atactostele, the vascular bundles are scattered. The nature of the vascular supply to leaves is also note worthy element of the vascular system.

(c) Siphonostele: In siphonosteles, vascular supply to leaves associated with leaf gaps and the conducting cylinder is a dissected or dictyostele

(d) Dictyostele - A stele in which the vascular cylinder is broken up into a longitudinal series or network of vascular strands around a central pith (as many ferns).


sperm
6
antheridium
5
egg
archegonium
7
zygote
Embryo
sporophyte
8
4
gametophyte
3
3 spore
1
sporophyte
2
sporangium