1) Importance of Fungi to Mankind

a) Mushrooms are eaten as food

b) Certain fungi like yeast are used in bakeries for bread production.

c) Species like Penicillum notatum are used to produce important antibiotics

d) Fungi act as vital biological control agents for certain pests.

2

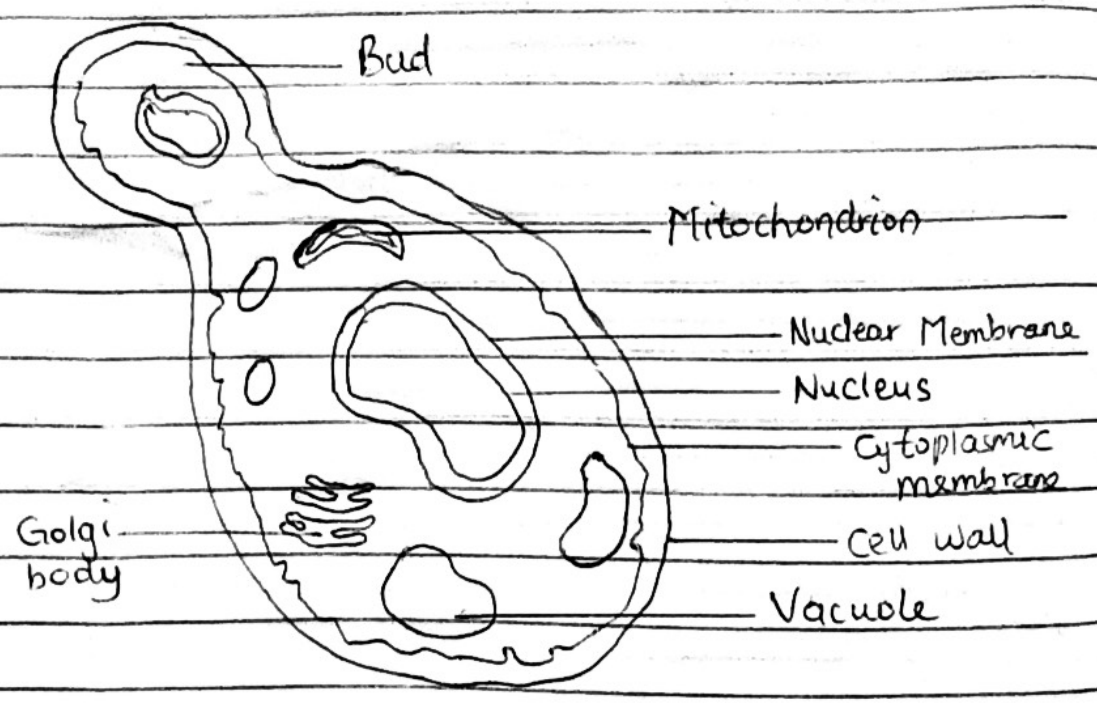


DIAGRAM OF YEAST

3 Sexual Reproduction in Rhizopus – A filamentous fungus

Sexual reproduction occurs when two mating types of hyphae grow in the same medium, close to each other. Chemical interaction in the two hyphae and induces growth perpendicular to the hyphae in opposite directions. These growths are delimited by a wall such that many nuclei are isolated in a **gametangium**

The two gametangia fuse by plasmogamy and a zygote is formed which may undergo prolonged dormancy or resting stage. The nuclei

In the zygotes fuse in twos and undergo meiosis independently. The zygote germinates under favourable conditions to produce a fruiting which at maturity produces haploid spores

4 Bryophytes adaptation to their environment

i ~~They have defined structures~~ Possession of rhizoids for water and nutrient absorption from the soil.

ii Possession of some modifications on the body surface that prevents excessive loss of water.

iii Possession of openings on aerial parts for exchange of gases between internal part of the plant and atmosphere.

5 Describe the following

a Eustele

A type of siphonostele in which the vascular tissue in the stem forms a central ring of bundles around the pith.

b Atactostele

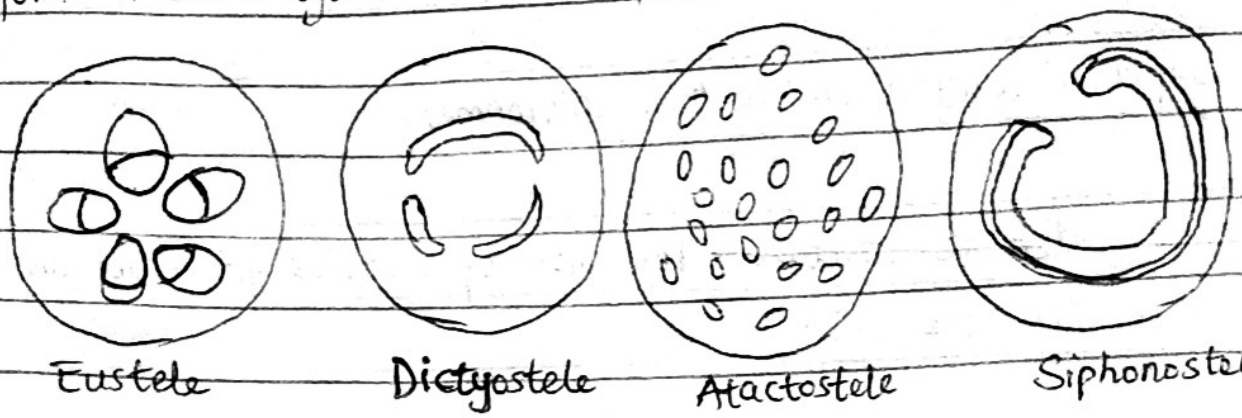
A type of eustele found in monocots, in which the vascular tissue in the stem exists as scattered bundles.

c Siphonostele

A stele in the stems of most ferns and other seedless vascular plants where the vascular tissues are in the form of a cylinder surrounding the pith.

d Dictyostele

A type of siphonostele in which the vascular tissue in the st[illegible] forms a central cylinder around a pith, but with spaced leaf g[illegible]



6 Life Cycle of a primitive vascular plant — Psilotum