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Assignment.

1. How are fungi important to mankind?

Although we often think of fungi as organisms that cause disease and rot food, fungi are important to human life on many levels.

• As food.

Fungi figure prominently in the human diet. Morels, Shiitake mushrooms etc are considered delicacies.

• As medicine.

Many secondary metabolites of fungi are of great commercial importance. They naturally produce antibiotics to kill or inhibit the growth of bacteria, limiting their competition in the natural environment.

Fungi can also be used in farming, and biological insecticides.

2. Outline the sexual reproduction in a typical filamentous form of fungi.

Moulds.

Moulds reproduce by spores. Sexually initiated spores result from mating between two different organisms or hyphae, ~~where~~ reproduction in fungi is complex and involves a great diversity of structures. Spores are like seeds (they germinate) to produce a new mould colony.

There are four types of / kinds of sexually determined spores that appear in mould fungi;

• Oospores • Zygozspores • Ascospores } • basidiospores

3. How do Bryophytes adapt to their environment?

Two adaptations made the move from water to land possible for bryophytes; A waxy cuticle and gametangia. The waxy cuticle helped to protect the plant's tissue from drying out and the gametangia provided further protection against drying out specifically for the plant's gametes.

f. Describe ^{with} the illustrations the following terms;

- eustele
- atactostele
- Siphonostele
- dictyostele

Eustele:

A stele typical of dicotyledonous plants that consist of vascular bundles of xylem and phloem strands with parenchymal cells between the bundles.

Atactostele:

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

Siphonostele:

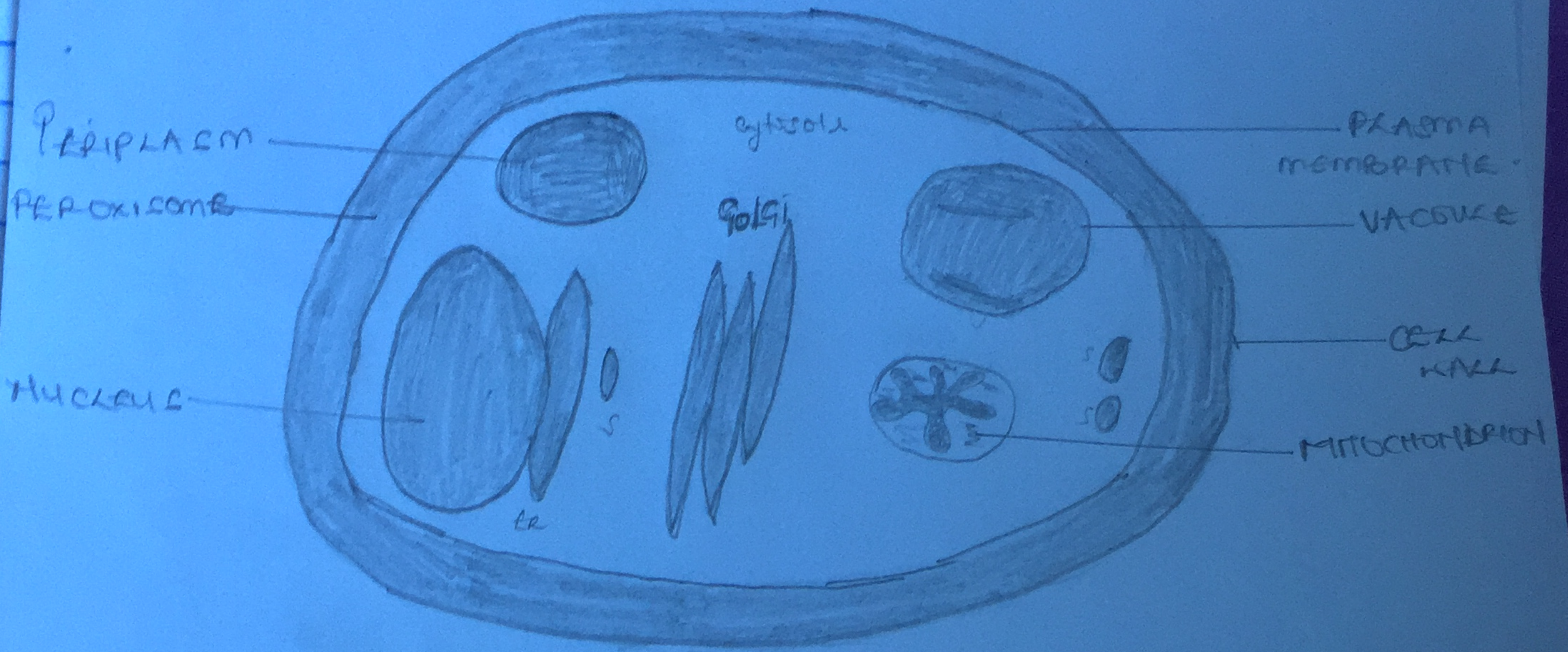
A stele in which the vascular tissue is in the form of a cylinder surrounding the pith, as in the stems of most ferns and other seedless vascular plants.

Dictyostele:

A stele in which the vascular cylinder is broken up into a longitudinal series or network of vascular strands around a central pith.

III YEAST CELL

The cell structure of a unicellular fungus with a well labelled diagram.



• LIFE CYCLE OF A FERN.

Illustrate the life cycle of a pinnate vascular fern

