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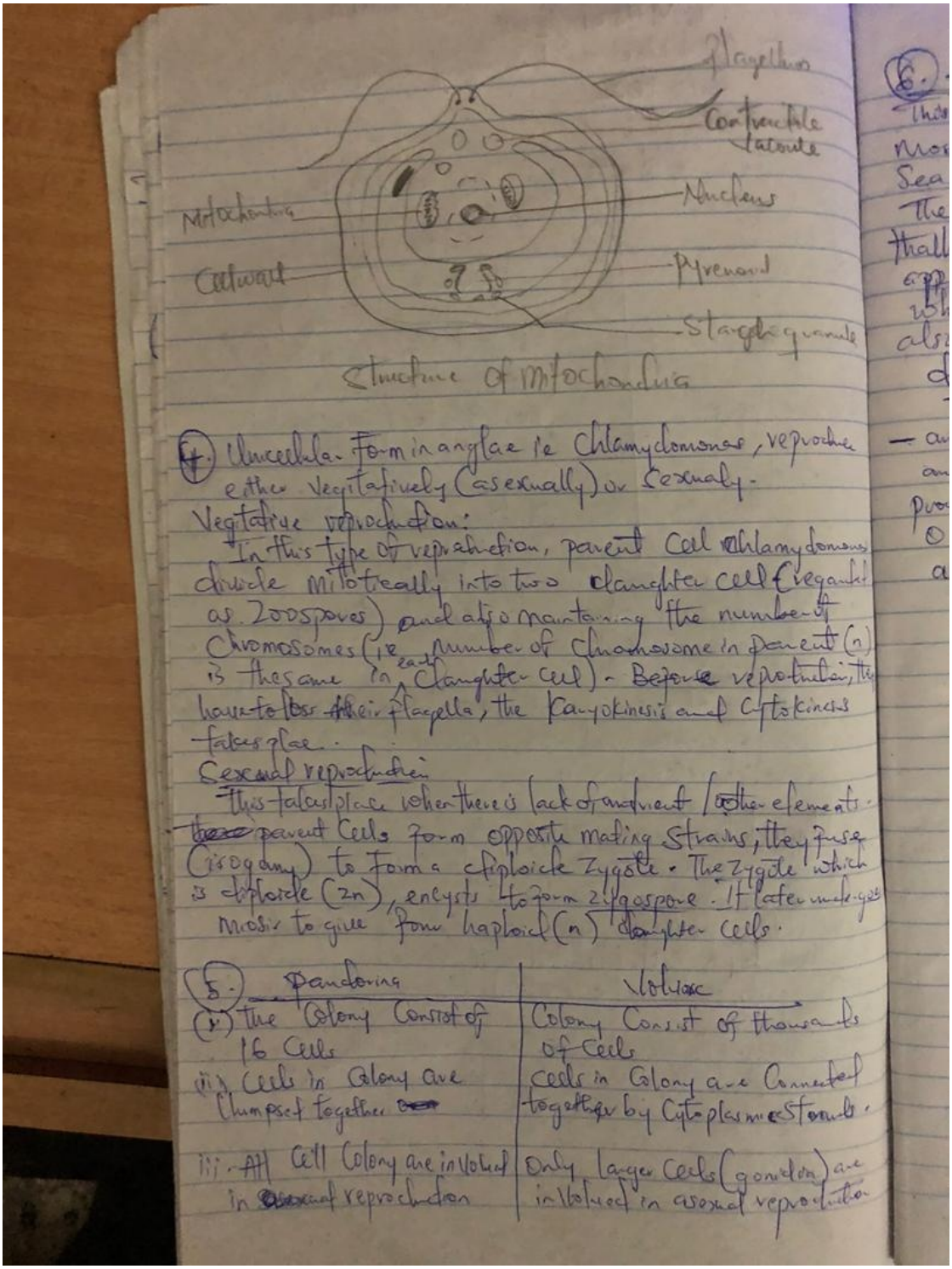

Structure of mitochondria

4. Unicellular Form in algae ie Chlamydomonas, reproduce either vegitatively (asexually) or sexualy.

Vegitative reproduction:

In this type of reproduction, parent cell Chlamydomonas divide Mitotically into two daughter cell (Regarded as Zoospores) and also maintaining the number of Chromosomes (ie each number of Chromosome in parent (n) is the same in daughter cell). Before reproduction, they have to lose their flagella, the Karyokinesis and Cytokinesis takes place.

Sexual reproduction

This takes place when there is lack of nutrient / other elements. parent Cells form opposite mating Strains, they fuse (Isogamy) to Form a diploide Zygote. The Zygote which is diploide (2n), encysts to form zygospore. It later undergoes Meosis to give four haploid (n) daughter cells.

5.

Pandorina	Volvox
(i) The Colony Consist of 16 Cells	Colony Consist of thousands of Cells
(ii) Cells in Colony are Clumped together	Cells in Colony are Connected together by Cytoplasmic Strands.
(iii) All Cell Colony are involved in Sexual reproduction	Only larger Cells (gonidia) are involved in sexual reproduction

(6.) Fucus (A Complex Form of algae)

This is a genus of brown algae whose species are mostly found on rocks in the intertidal zones of the Sea shore.

The plant body is flattened, dichotomously-branched thallus with a mid rib, a vegetative apex, a reproductive apex at maturity and a multicellular disk with which the plant is attached to rocks. Surface. It also has air bladder for floating. They are the only diploide form of algae.

They Reproduce sexually. male gametes - antheridium (having 64 cell) produced in the male conceptacle and female gametes - oogonium (having 8 cells) produced in the female receptacles. antheridium fuses with oogonium to form a zygote which later grows to a new fucus.

Department Medicine and Surgery - MBBS
Course Bio 102

(1) classification of Plants according to Eichlers grouping in 1883:

Division	class
Thallophyta	Phycotinae (Algae) Mycotinae (Fungi)
Bryophyta	Hepaticae (liverworts) Musci (Mosses
pteridophyta	psilotinate (psilotum) Lycopodinae (Lycopodium, Selaginella
spermatophyta	Gymnospermae (Gymnosperms) Angiospermae (Angiosperms)

(2) i- Algaes are important as food for fish
ii- It Serves as food for people and livestock
iii- Algae have a high Concentration of Iodine which is positive preventive
iv- Brown algae are used to stabilize emulsion and suspension
v- They are also used in the preparation of gels for scientific research.

(3) Unicellular form in the algae
Chymadomonas represents the unicellular and motile form of green algae. They are found in Stagnant water. They possess a pair of flagella for mobility. The cell is bounded by a Cellulose Cellwall. Containing nucleus, Mitochondria, Stigma (eyespot), Cup-shaped Chloroplast, Pyrenoid etc.
The nucleus carries the Genetic programme. The Stigma (eyespot) is for photoreception. Mitochondria generates energy. Sugar is manufactured/stored in the Pyrenoid.

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