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MATRIC NO:19/MHS02/047

DEPT: NURSING

2a. Food For sea animals and fishes: The algae are used as a direct source of food by several sea animals and fishes. The marine algae are rich in iodine and several other important minerals.

b. Manufacture of paper: It is probably thought that a rough quality of paper may be manufactured from sea weeds as, yet it is not practiced

c. Ornamental Uses: Some algae like basidium and spirogyra are grown in the garden ponds for their good-looking habit

d. Manufacture of light weight buildings: Germany has discovered a process in which the sea weeds are mixed with cement to make buildings light in weight and good heat resistance.

e. Manufacture of soaps and alums: By burning sea weeds on the seacoast. The alkalis are prepared from seaweed ashes. These alkalis are employed in the manufacture of soaps and alums

3. Unicellular form of organs;

Chlamydomonas represent the unicellular and motile forms of green algae found in stagnant water usually along with other forms. The cell is bounded by a cellulous cell wall; contains organelles e.g. nucleus, mitochondria, stigma (eye spot), cup shaped chloroplast, pyrenoid etc.

The nucleus carries the genetic programme of the cell; the stigma is photoreception. The mitochondria mediate the elaboration of energy molecules. Manufactured sugar is processed into starch on the pyrenoid.

4. Algae reproduces asexually and sexually. Asexual reproduction in unicellular algae involves cell division followed by cell separation .Reproduction of colonial and multicellular algae involves asexual and sexual unicellular stages and for some organisms, fragmentation .In sexual unicellular organisms the gamete can be produced by division (often multiple fusion ,as in numerous algae)or,as in yeasts, by the organism turning its self into a gamete and fusing its nucleus with that of a neighbor of the opposite sex a process that is called fragmentation.

5. DIFFERENCE BETWEEN THE TWO COLONIAL FORMS OF ALGAE:

. VOLVOX

- . its sexual reproduction is Oogamus**
- . It has a multicellular motile thallus**
- . its complex form is Pandorina**

2. PANDORINA

- its sexual reproduction is anisogamous
- it has a unicellular motile thallus
- it is a genus of green algae

6. COMPLEX FORM IN THE ALGAE

FUCUS:

It's a genus of the brown algae whose species are found on rocks in the intertidal zones of the seashores. The body of the plant is flattened, dichotomously branched thallus with a midrib, a vegetative apex and a multicellular disc with which plant is attached to rough surface. The body has hair bladders which is believed to aid plant to float on the water. It varies in size from a few centimeters to about 2 meters in length.

Sexual reproduction is oogamous, Sex cells are produced in conceptacle which have openings ostioles on the surface of the thallus

1.Eichler's grouping of 1883

DIVISION	CLASS
<u>Thallophyta</u>	<u>Phycotinae(algae)</u> <u>Mycotinae(fungi)</u>
<u>Bryophyta</u>	<u>Hepaticae</u> <u>(liverwort)</u> <u>Musci(mosses)</u>
<u>Pteridophyta</u>	<u>Psilotinate</u> <u>(Psilotum)</u> <u>Lycopodinae</u> <u>Selaginella)</u> <u>Equisentinae</u> <u>(Horsetails)</u> <u>Filicinae (ferns)</u>
<u>Spermatophyta</u>	<u>Gymnospermae</u> <u>(Gymnosperms)</u> <u>Angiospermae</u> <u>(Angiosperms)</u>
