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COURSE CODE: BIO 1O2

**ASSIGNMENT**

**1. A system of plant taxonomy, the Eichler system was the first phylogenic (phyletic) or**

**evolutionary system. He gave system of classification for the whole plant kingdom. Eichler**

**classified the plant kingdom into two sub-kingdom. They are Cryptogamae and Phanerogamae.**

1. **Cyptogamae are flowerless and seedless plants. They are simple and flowerless plants like algae, mosses and ferns which do not produce flowers, fruits and seeds. Cryptogams are considered as lower plants.**
2. **Phanerogamme are seed bearing plants. So they are also known as spermatophytes. They are higher plants. The plant body is differentiated into roots, stem and leaves with well developed vascular system. Examples are angiosperms and gymnosperms.**

**2. Importance of algae to man.**

Direct use of algae as food for man

* **Production of alginic acid, mannitol and align which are used in making dyes, buttons and combs**
* **Used as fertilisers.**
* **Ornamental uses**
* **As a source of agar in the production of ice cream, jellies, desserts etc.**
* **Manufacture of soaps and alums**
* **Medicines and minerals**
* **Iodine is manufactured from it**

**3. Unicellular form of algaa can also be called acellular algae as they function as complete living**

**organisms. Unicellular forms are common in all the groups of algae except Rhydophyceae,**

**Phyaeophycaea and Charophyceae. The unicells may be motile or non-motile.**

**4. Cell division or fission is the simplest method of reproduction for the unicellular forms of algae it**

**is mostly called binary fission as found in chlamydominas. In this method the two vegetative cells**

**divides mitotically into two daughter cells, those finally divide into new ones. Their reproduction is asexual .**

**5. Differences between VOLVOX and SYNURA**

**Volvox *Synura***

* Reproduction is both sexual and asexual Reproduction is sexual
* Spherical colonies of up to 50,000 cells Only a few cells in the colonies

**6. Spirogyra is a filamentous charophyte green algae of the order of Zygementales, named for the**

**helical or spiral arrangement of the chloroplasts that is characteristic of the genus. It is**

**commonly found in freshwater habitats, and there are more than 400 species of spirogyra in the**

**world.**