NAME: Jogun-omi Oyinkansola Maryam

COLLEGE: Medicine and health sciences

DEPARTMENT: Pharmacy

MATRIC NO: 19/MHS11/078

COURSE CODE: BIO 102

ANSWERS

1). Classification of plants according to Eichler's grouping of 1883

a) Division Thallophyta- Class Phycotinae(Algae) and Class Mycotinae(Fungi)

b) Division Bryophyta- Class Hepaticae(Liverwort) and Class Music(mosses)

c) Division Pteridophyta- Class Psitotinae, Class Lycopodinae, Class Equisetinne and Class Filicinae

d) Division Spermatophyta- Class Gymnispermae and Class Angiospermae

2). ECONOMIC IMPORTANCE OF ALGAE TO MAN

\* It serves as food to man, in which they are nutritious because of the high protein content

\* It is also used as thickening agent in shampoos and ice cream

\* It is used in pharmaceutical, textile and cosmetic industries

\* It is also used to stabilize emulsions and suspensions usually in products like syrup, ice cream and paint

\* It is also used in food industries for preservation of canned foods and stabilization of pie-filling

\* It is also used as agar gel for the cultivation of microbes mostly bacteria

3) DESCRIPTION OF A UNICELLULAR FORM OF ALGAE

A good example of a unicellular form of algae is CHLAMYDOMONAS. It is usually found in stagnant waters usually along with other forms, it moves around with the aid of a flagella, it possess a cell, bounded by a cellulose wall. It also has a nucleus for the genetic programme of the cell, stigma for photoreception. One other characteristic of CHLAMYDOMONAS is the ability to processvstarcg into manufactured sugar through the Pyrenoid.

4) REPRODUCTION IN CHLAMYDOMONAS

The reproduction occurs either through vegetative reproduction also known as asexual reproduction and sexual reproduction

\*VEGETATIVE REPRODUCTION : This reproduction involves spore formation. The reproduction occurs through the production of daughter cells with the same amount of genetic material of the nucleus of the mother cell. In this reproduction the cell division that occurs is MITOSIS. When about to divide it loses its flagella and divides into two nuclei through mitosis, thereby leading to the production of two daughter cells or zoospores.

\*SEXUAL REPRODUCTION

Sexual reproduction occurs when certain environment condition occurs there by preventing the production of daughter cells forming spores, instead forming gametes. Opposite mating strains fuse in a process called ISOGANY to form a diploid zygote, after a while the zygote undergoes the cellular division called MEIOSIS producing four haploid daughter cells or zoospores that finally become matured cells

5) DIFFERENCES BETWEEN THE TWO TYPES OF COLONIAL FORM OF ALGAE

Volvox. Pandorina

1 The colony consist of 16 The colony consist of a thousand cells

cells

2 It has anisogamous pairing. It has oogamous pairing

6)DESCRIPTION OF A NAMED COMPLEX FORM OF ALGA

The named complex form is FUCUS, it is a genus of brown algae whose spores are found on rocks in the interdial zones of sea shores. The body is usually flattened, with a dichotomously branched thallus with a midrib, also a vegetative apex (only at maturity) and a multicellular disk with which the plant is attached to the rock surface

The FUCUS also varies in terms if sex cells being found in the same sexual chamber or in different sexual chambers on diffqerent plant bodies. Sexual reproduction is OOGAMOUS, also sex cells are produced in conceptacles