Evolution of plants and fungi assignment

Evolution of Plants and Fungi Plants have been around for over 500 million years, the plants all differ so much but they also have many similarities among themselves and also to green algae. Some scholars even think that plants paved the way for land animals by simultaneously increasing the amount of oxygen in the Earth’s atmosphere and decreasing the amount of carbon dioxide.

Evolutionist believe that plants evolved from green algae, they think this because: they both carry on photosynthesis, they tooth have cell walls made of cellulose, they make and convert simple sugars into polysaccharides, this includes starch which they both store. They also both have chlorophyll a and b, DNA and RNA analysis confirm that they are also closely related to the stonework’s, these have calcium carbonate outer coverings which gives them that rough feeling. Both have mitotic areas that enable lengthening of the filament or stem.

They have node areas on the stem that can produce leaves and reproductive parts. Both plants and algae have communication from one cell to the next, they both ass nutrients and other chemicals to the zygote to ensure the zygote survives. Plants had to evolve from living in water though, they had to move to land and successfully survive. Plants evolved several ways to ensure the zygote survived and to keep reproducing. First they had to find a way to protect the zygote. Mosses, liverworts, and hornwort were the first to do this.

They needed to give the zygote a safe place to grow, to protect it from drying out, and had to be able to supply the zygote with food. The plants

also needed to have vascular tissue, ferns, club mosses, ND horsetails were the first to have vascular tissue. On land they needed some way to catch water and hold it when it rained or to be able to move it from the soil to the rest of the plant when it rained. This problem was solved by vascular tissue. This not only solved the problem of moving water and nutrients but the strong cell walls allowed the plants to grow taller and not fall over.

They had to have some way to protect the zygote and the zygote needed a way to get food to grow and also be able to withstand the weather such as wind, the cold, drought, and other environmental robbers. This created the seed, gymnosperms, which is any seed producing plant solved the problem. Conifers were the first to have a seed, a conifer seed is called a naked seed. The seed contains the embryo, a food source in the form of starch, and a protective seed coat. Lastly the needed a better way for the pollen to reach the egg and a better way to ensure that the zygote was disbursed.

This creates the flower, any flowering plant is known as an angiosperm. They needed another way, other than the wind or water, to be certain that the male gamete reaches the female egg. There also needed to be a better means of seed dispersal. Fruits and flowers solved this problem. Plants also have an alternation of generations life cycle. All plants have a life cycle that includes alternation of generations. In this life cycle , two multicultural individuals alternate each producing or making the other.

The two individuals are a saprophyte, which is the diploid generation, and a commemorate, which is the haploid generation. The saprophyte which is the an is named for its production of spores by meiosis. A spore is a haploid

reproductive cell that develops into a new organism thou having to fuse with another reproductive cell. In the plant life cycle a spore undergoes mitosis and becomes a commemorate. The commemorate which is n, is named for is production of gametes. In plants, eggs and sperm are produced by mitotic cell division.

A sperm and an egg fuse together forming a diploid zygote that undergoes mitosis and becomes a saprophyte. The plant life cycle begins with meiosis producing haploid spores. It them continues to the saprophyte which is the diploid generation and spores are haploid reproductive cells. Mitosis then occurs tooth as a spore becomes a commemorate and again as the zygote becomes a saprophyte. This results in two generation. The saprophyte generation the most dominant in plants, this includes both gymnosperms and angiosperms, it allows for both growth on drier land and the attainment of height.

The advantages of the dominant saprophyte generation is greater height, transportation of water and dissolved nutrients and movement of glucose to the roots, and easier reproduction for a dry land environment. Angiosperms the flowering plant evolved in the Mesozoic some 200 MAY. The first lying insects appeared about the same time also, many of these became pollinators. We place all flowering plants into two major groups. One being monocots, these have only one cotyledon-seed leaf, their leaves have parallel venation, and flowers in threes or multiples of three, they have a fibrous root system.

These would include bamboo, corn, bananas, and grasses. The other group are edicts or idiots, these have two seed leaves, and a net venation of the leaves the flower parts in fours or fives or multiples of these. They have a tap root, this includes oak trees beans and tributaries. Almost all human plant food comes from angiosperms. Food grains come from monocots, one of these would be corn which helped us surpass European countries in both grain production and meat.

Bread, breakfast cereals , coffee and tea, chocolate, spices, cotton clothing, housing materials, furniture, medicine and drugs, even gasoline and coal comes from past or present plants. There are the bryophytes also, their function is to protect the embryo and they have apical growth. Hornwort, liverworts, and mosses are bryophytes, they are the nonverbal plants. In the moss life cycle the dependent saprophyte produces windblown spores in sponsoring. The dominant commemorate produces flagellated sperm. Then there is the leukocytes, these are the vascular plants.

They have tissue consisting of logging strengthen xylem for water transportation and phloem for nutrient transportation. The leukocytes are one of the first types of plants to have vascular tissue, they are also seedless, also like ferns. They are called club mosses because the sponsoring are produced in club-shaped stroll. Flowers have a wide variety of uses like medicine, food, smell and decoration, but here is a reason why flowers have so many different parts and not Just to be pretty either, the flower varies widely in appearance but most have similar structures.

The flower stalk expands slightly at the tip into a receptacle, which bears the other flower parts. These parts, sepals, stamens, and the carpel are attached to the receptacle in circles. The sepals, or the calyx, protect the flower bud before it opens. The petals, or the corolla, are quite diverse in size, shape, and color. The petals attract a particular pollinator. The stamens consist of two parts: the anther, a sallies container, and the lament, a slender stalk. The anther contains pollen sacs. At the very center of the flower is the carpel, a vase like structure with three major regions.

The stigma, an enlarged sticky knob, the style, a slender stalk, and the ovary and enlarged base that encloses one or more ovules. The ovule becomes the seed, and the ovary becomes the fruit. The advantages of the fruit of flowers is that they protect and aid in the dispersal of seeds. Dispersal occurs when seeds are transported by wind, gravity, water, or animals to another location. Fleshy fruits may be eaten by animals which transports he seeds possibly over a wide range of land. The advantage of the seed is in dry environments, because the plant that germinates has the rudiments of vascular tissue.

Seeds are protected by a strong seed coat, the endosperm and the cotyledons of seeds provide nourishment that helps the new plant survive until it starts photosynthesis. On to fungi, which have their own evolutionary history. Fungi are a structurally diverse group of eukaryote that are strictly heterodoxy. Their digestion system is outside their body and the food is broken down by released digestive enzymes. They are very important as decomposer and break down organic matter into inorganic nutrients, which are essential to plant growth.

Some fungi are important as human and animal food, important companions to plant roots, as parasites, and some disease producers in both plants and animals including ringworm, athletes foot, and thrush. The characteristics of fungi include that they are usually multicultural without flagella, they absorb food, they have a haploid life cycle with windblown spores during sexual and asexual reproduction. Most fungi are saprophyte that compose dead remains, a McCollum which is a mass of filaments called hyphen, makes up the fungal body.

Then there is land fungi which produce windblown spores during both sexual and asexual reproduction. Then the chastity which are aquatic fungi that produce flagellated spores and gametes. Fungi have a naturalistic relationship with algae and plants. Myocardial fungi form a naturalistic relationship called miscarriage with plant roots, which increases the root surface area as well as the water and nutrient intake of the plant. A lichen is a naturalistic relationship between and fungus and contracted or green algae. Land fungi have three main groups during sexual reproduction.

There is the gossiper fungi which is black bread mold, a gossiper or sac fungi which is cup fungi, red bread mold and yeast, the club fungi which are mushrooms.