

Biology 102 Exam III Study Guide

Which kingdom do plants belong to?

List some of the reasons plants are important.

Plants, unlike animals, have two distinctive adult forms, or generations, to their life cycle. What do we call these two generations?

What do we call the property that plants actually have two generations?

By what criteria are these two generations named?

These generations differ from one another by the number of chromosomes they contain. What do we call the haploid generation?

What do we call the diploid generation?

What are three distinctive forms of algae?

Are algae plants? If not, then what are they?

What are some of the qualities that algae share with plants?

Do all plants make their own food?

Do plants make gametes, like sperm and eggs?

By what process of cell division do plants produce gametes?

By what process do plants produce spores?

Gametes are produced in special structures or tissues called what? (collective term)

Spores are produced in special structures called what?

What organisms do the Bryophytes include?

Do Bryophytes have vascular tissue? How do we refer to them then?

Bryophytes, like Ferns, need what substance in order to reproduce sexually?

Which plant generation is the dominant generation in Bryophytes?

Do Ferns, like angiosperms, produce seeds?

Which plant generation is the dominant generation in Ferns?

What major resource today is derived from vast fossilized forests of ancient ferns?

What do we call the leaves on a fern?

Do ferns possess vascular tissue?

Ferns produce spores in sporangia. The sporangia are found in clusters that look like little brown dots on the bottom of fern leaves and are called what?

Even though Ferns are considered vascular plants, what part of a fern plant lacks vascular tissue?

Gymnosperms are better known as the what plants?

The needles on a Gymnosperm are modifications of this part of a tree?

Gymnosperms can resist harsher environmental conditions than most other plants because they produce large amounts of?

The seeds produced by Gymnosperms are contained in what reproductive part of the plant (analogous to fruit, but not fruit)?

There are two parts to a plant body, named according to the direction they grow. What are they?

What physical force determines which direction these parts grow?

Angiosperms are better known as what group of plants?

List some of the reasons that Angiosperms are important.

The reason why angiosperms are so successful is because they produce?

The Angiosperms are further divided into two major groups. The group characterized by possessing one cotyledon is called?

The group characterized by possessing two cotyledons is called?

What is a cotyledon?

List the characteristics of Monocots.

List the characteristics of Dicots?

What is the dominant generation in Angiosperms and Gymnosperms?

What are the major plant organs?

Petals, thorns, sepals, stamens and pistils are all modifications of what plant part?

What are the buds called on a plant that grow at the tips of roots and stems, and are responsible for elongation of plant parts?

What are the major types of plant cells?

What are the simple tissues in a plant?

What are the Complex Tissues in a plant?

Sieve-tube members and companion cells are classified as?

Tracheids and vessel elements are classified as?

Fibers and sclereids are classified as?

What do we call the regions on a stem where leaves and/or new stems are attached?

Which vascular tissue is responsible for the transport of water and dissolved nutrients?

Which vascular tissue is responsible for the transport of sugar and starches?

What is the waxy outer covering on the epidermis of plants that protects them from dehydration and disease?

What do we call the ground tissue that makes up the photosynthetic part of a leaf?

What pigment is absolutely necessary for photosynthesis?

What are the products of photosynthesis?

What are the only parts of a plant that will carry out photosynthesis?

What do we call masses of vascular tissue in a plant (these are typically referred to as “veins”)?

What do we call the tiny pores in a leaf for gas exchange and control of water loss?

What do we call masses of actively dividing cells (the only ones) in a plant?

What do we call the rings of dividing tissue in a plant that are responsible for the increase in girth of a plant?

What part of a flower eventually turns into a fruit?

How do we define a fruit?

What word describes the process of water loss by a plant through its leaves to cool itself off and aid in the movement of nutrients from the soil?