

S.1

**BIOLOGY HOLIDAY WORK**  
**STRUCTURE OF THE FLOWERING PLANT.**

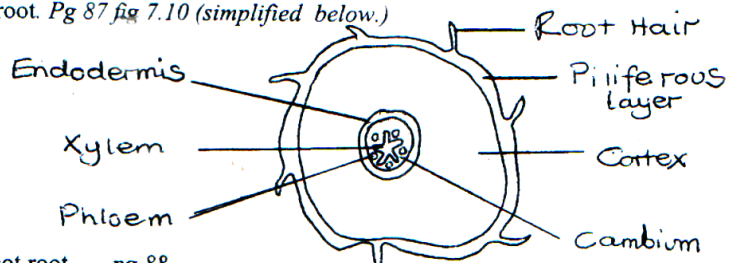
Reference book: **New Biology for Tropical Schools by Stone and Cozens.**

- a) Draw the structure of a flowering plant. Pg 81 fig.7.1 and label the main structures of the plant.
- b) What makes up the vegetative part of a plant?

**2. THE ROOT** Pg 81-82.

- a) Write down the main functions of the roots. Pg 81
- b) Define and draw the following root systems giving examples.
  - i) Tap root system pg 81
  - ii) Fibrous root system pg 82
  - iii) Adventitious roots.
- c) Draw well labeled Transverse sections of the following:

- i) Dicot root. Pg 87 fig 7.10 (simplified below.)



- ii) Monocot root, pg 88

giving the function of each labeled part. Pg 87-88

- d) **Modified Roots.** Some plants have roots which differ from the normal and may have special functions. Some are aerial roots, and others are storage roots.

Describe and draw the different types of

- i) aerial roots and pg 82-83 fig 7.4
- ii) Storage roots. Pg 132 figs 11.7 and 11.8

**3. THE STEM.**

- a) List the main functions of the stem. Pg 82

- b) What features must any stem have? *Pg 82-83*
- c) Draw well labeled Transverse sections of the following:
- i) Dicot stem *pg 85 fig 7.7*
  - ii) Monocot stem *pg 88 fig 7.12 A*

Stems can also be modified for other purposes. Draw, label and briefly describe what rhizomes stem tubers, corms are modified for, giving examples in each case. *pg 130-131.*

→. **THE LEAF.**

- a) Draw a well labeled diagram of the hibiscus leaf. *Pg 83 fig 7.5*
- b) List the functions of a leaf to a plant. *Pg 83-84*
- c) What is meant by the term venation?
- d) Describe reticulate or net venation and parallel venation giving examples in each case.
- e) **Leaf types.** *Pg 84*

Describe and draw the following leaf types:

- i) Simple leaf
- ii) Compound leaf

Under the compound leaf are several types namely:-

- Pinnate
- Bipinnate
- Digitate
- Trifoliate

**NOTE:** THE CASSAVA LEAF IS A SIMPLE DIGITATE LEAF AND NOT A COMPOUND DIGITATE LEAF.

**Modified leaves.**

Describe and draw the different modifications of leaves.

\*\* (Leaf margins and shapes will be discussed when you come back next term.)