**Plant Identification**

**I. Taxonomy**

**1. Define the term taxonomy.**

Taxonomy –

**2. Circle the letter of each sentence that is true about early efforts at naming organisms.**

a. Names were usually in English.

b. Names often described detailed physical characteristics of a species.

c. Names could be very long.

d. It was difficult to standardize the names.

**3. Who developed the modern classification system of organisms?**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**4. Define the term binomial nomenclature.**

Binomial Nomenclature –

**5. Circle the letter of each sentence that is true about binomial nomenclature.**

a. The system is no longer used today.

b. Each species is assigned a two-part scientific name.

c. The scientific name is always written in italics.

d. The second part of the scientific name is capitalized.

**6. Identify the genus and species names of a red maple*, Acer rubrum*.**

Genus = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Species = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**7. List the remaining seven taxonomic levels** *(from general to specific)***.**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - contains phyla

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - contains classes

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - contains orders

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - contains families

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - contains genera

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - contains species

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - individual species

**II. Leaves & Shoots**

**1. Identify the differences between the following leaves and draw each type of leaf.**

Simple Leaf : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Compound Leaf : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Bi-pinnate Leaf : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Palmate Leaf : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**2. Draw a picture of an orbicular leaf and a serrated leaf.**

Orbicular Leaf Serrated Leaf

**3. What is the difference between alternate, opposite, and whorled petiole arrangements?**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**4. Define the following shoot identification terms.**

Bundle Scar -

Lateral Bud -

Terminal Bud -

**III. Flower Parts**

**1. Match the following flower parts with the correct definitions.**

1. \_\_\_\_\_ Anther A. Structure in which female gametophytes form

2. \_\_\_\_\_ Carpel B. Circle of flower parts that enclose a bud before it opens

3. \_\_\_\_\_ Filament C. Brightly colored; Attracts insects to flowers

4. \_\_\_\_\_ Ovary D. Male part of the flower; Made up of anther & filament

5. \_\_\_\_\_ Ovule E. Long, thin structure that supports the anther

6. \_\_\_\_\_ Petal F. Part with no differentiation between petals and sepals

7. \_\_\_\_\_ Sepal G. Structure in which male gametophytes form

8. \_\_\_\_\_ Stamen H. Female part of the flower; Made up of stigma and style

9. \_\_\_\_\_ Stigma I. Flower structure that contains one or more ovules

10. \_\_\_\_\_ Style J. Narrow stalk of the carpel in a flower

11. \_\_\_\_\_ Tepal K. Sticky portion at top of style; Where pollen grains land

**2. Draw a picture of an inferior flower ovary and superior flower ovary.**

Inferior Ovary Superior Ovary

**3. Give an example of each type of botanical fruit.**

**Simple Fruits**

Fleshy Dry, Indehiscent Dry, Dehiscent

Berry : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Achene : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Capsule : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Drupe : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Grain : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Follicle : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Pome : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Nut : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Legume : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Samara : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Silicle : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Schizocarp : \_\_\_\_\_\_\_\_\_\_\_\_ Silique : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Complex Fruits**

Aggregate : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Multiple : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_