

Botan & Chem

3th year

May – 2019

Date : 25/05/2019



Benha University

Faculty Of Science

Botany Departement

A. Taxonomy ex (332 N)

Answer the following questions

1. Explain The Following System of classification :

- a) Bentham And Hooker
- b) Hutchinson .
- c) Engler

2. Write on :

- a) Family musaceae.
- b) Family Urticaceae ..
- c) Family Papilionaceae .

3- Compare between Androecium and Gynoecium in Families:-

- a) Convolvulaceae – Verbenaceae.
- b) Solanaceae – Chenopodiaceae.

نموذج إجابة مادة تصنيف زهرى متقدم 332

تاريخ الإمتحان 2019-5-25

أستاذ المادة د/ أحمد عبدالرازق عبدالله كلية العلوم قسم النبات

إجابة السؤال الأول

a) Bentham And Hooker .

Phanerogams or seed plants divided into Dicotyledons, Gymnospermae and monocotyledons. Dicotyledons divided into Polypetalae, Gamopetalae and monbochlamydeae or incomplete

b) Hutchinson .

Hutchinson has divided the seed plants into two phyla-

1. Gymnosperamae and 2. Angiospermae. The phylum Angiospermae has been further divided into two sub-phyla- 1. Dicotyledones and 2.

Monocotyledones. The sub-phylum Dicotyledones has been divided into

two divisions- 1. Lignosae and 2. Herbacea. The lignosac. A woody group

and herbaceae, a herbaceous group. The sub. Phylum Monocotyledones has

been divided into three groups – 1. Calyciferae. 2. Corolliferae and 3.

Glumiflorae. The flowers of group Calyciferae possess distinct calyx and corolla; the flowers of group corolliferae possess more or less similar calyx and corolla; the flowers of group Glumiflorae possess much reduced perianth of lodicules .

c) Engler.

Phanerogams or seed plants divided into Dicotyledons, Gymnospermae and monocotyledons. Dicotyledons divided into Polypetalae, Gamopetalae and monbochlamydeae or incomplete

إجابة السؤال الثانى

2. Write a short note on :

a) Family musaceae.

Habit : Mostly perennial herbs of big dimensions.

Root : Adventitious

Stem: Underground rhizome or root stock.

Inflorescence: The flowers are borne in terminal spikes or panicles.

Flower: Sessile, hermaphrodite, sometimes unisexual.

Perianth: Six perianth leaves are found to be arranged in two whorls of three each; gamophyllous or polyphyllous.

Androecium: Six stamens, free, usually arranged in two whorls; five stamens are perfect while the sixth one is either absent or rudimentary (staminode).

Gynoecium: Three carpels, syncarpous; ovary inferior trilocular, axile placentation,

Fruit: An elongated fleshy, Seeds Exalbuminous.

b) Family Labiate .

Habit: plants are annual or perennial herb, tree or climbing habit

Stem: erect and young shoot are usually four sided or quadrangular

Leaves: are simple, opposite and exstipulate. A whorled leaf arrangement of 3 to 4 leaves is found in some genera

Inflorescence: cymose inflorescence

Flowers: hermaphrodite, zygomorphic

Calyx: 5 sepals, gamosepalous, persistent, campanulate or tubular.

Corolla; consists of 5 petals, gamopetalous. Tubular and limb variously bilabiate consists of two lip.

Androecium: Four didynamous and alternate with the corolla lobes .or two stamen in some species.

Gynoecium: two carpels, syncarpous

Fruit: the fruits one seed-nutlets included within the persistent calyx

c) Family Papilionaceae .

Habit: the plant are herb or shrubs and very rarely tree.

Root: is tap root.

Stem: is erect or climbing

Leaves: are alternate, opposite or whorled, usually compound

Inflorescence: is racemose

Flowers pedicellate, zygomorphic, irregular, and complete bisexual.

Calyx: 5 sepals, gamosepalous.

Corolla: 5 petals

Androecium: 10 stamens

Gynoecium: one carpel ovary superior, marginal placentation

Fruits: legume