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| **3th year[إجتماع مجلس الكلية](http://www.fsci.bu.edu.eg/fsci/index.php/item/1344-2014-12-07-11-54-15) Botan & Chem**  **May – 2017**  **Date : 20/6/2017**  Time:2 hours | **Benha University**  **Faculty Of Science**  **Botany Departement** |
|  |  |

**Taxonomy ex (332 N)**

**Answer the following questions**

**24 mark**

**1. Explain The Following System of classification :**

a) Bentham and Hooker .

b) Hutchinson .

c) Engler

**2. Write on : 24 mark**

a) Family musaceae.

b) Family Papilionaceae .

c) Genral characters of Angiosperms.

نموذج إجابة مادة تصنيف زهرى متقدم 332ن

تاريخ الإمتحان 20-6-2017

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. Crorlliferae and 3. Glumiflorae. The flowers of group Calyciferae posses distinct calyx and corolla; the flowers of group corolliferae posses more or less similar calyx and corolla; the flowers of group Glumiflorae posses much reduced perianth of lodicules. c)Engler :-

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

**إجابة السؤال الثانى**

**2. Write on :**

**a) Family musaceae.**

**Habit :** Mostly perennial herbs of big dimensions.

**Root :** Adventitios

**Steam:** Underground rhizome or root stock.

**Inflorescence:** The flower 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:** Anelongated fleshy, Seeds Exalbuminous.

,

b) Family Papilionaceae .

Habit: the plant are herb or shrubs and very rarely tree.  
Root: is tap root.  
Stem: is erct or climbing  
Leaves: are alternateوopposite or whorledوusually compound  
Inflorescence: is racemose  
Flowers pedicellateوzygomorphicو irregularوand complete bisexual.

Calyx:5 sepales,gamoseplous.

Corolla: 5petales

Androecium: 10 stamens

Gynoecium: one carpel ovary superior,marginal placentation

Fruits: legume c) Genral characters of Angiosperms.