



2<sup>nd</sup> year (Bot&micro)  
Date : 2 / 1 / 2019  
Time:2 Hour

Benha University

Faculty of science

Botany&micro Department

---

**Taxonomy examination (232 n)- 48 Mark**

---

**Answer the following questions:**

**1- Compare between :**

- a) Androecium and Gynoecium in(Papilionioideae-Liliaceae) .
- b) Racemose and Cymose inflorescence .
- c) Primitive-Advanced flowers.

**2- Identify the following :**

- a) Fruits
- b) Flower

**3- Explain the following :**

- a) Fleshy fruits .
- b) Only Types Of Inflorescences.

**4- Write on :**

- a) Fertilization.
- b) General characters of: Monocotyledon-Dicotyledon plant .

**نموذج إجابة مادة التصنيف الزهري (232) ن**

**استاذ المادة د / احمد عبد الرازق عبد الله**

**تاريخ الامتحان 2019/01/02**

**Answer the following questions:**

**5- Compare between :**

**a) Androecium and Gynoecium in(Papilionodeae-Lilliaceae) .**

Androecium in family liliaceae Stamen 6. In two whorls,some times attached to the perianth. Gynoecium Carpels 3,syncarpous,ovary superior, trilocular with numerous ovules on axile placenta.

but in family papilionoideae Androecium Stamens 10 diadelphous. But in Gynoecium carpels one , ovary unilocular with several ovules on marginal placentation .

**b) Racemose and Cymose inflorescence .**

Racemose monopodial branch but in cymose sympodial branch.

**c) Primitive-Advanced flowers.**

**Floral leaves are arranged on receptacle in a special way (spiral) but in advanced are whorled.**

**6- Identify the following :**

**a) Fruits**

The fruit is defined as the mature, pollinated and fertilized pistil or gynoecium of the flower .

**b) Flower**

**Flower is considered as a metamorphosed shoot system which bears the floral organ at special nodes.**

**7- Explain the following :**

**A- Fleshy fruits .**

Fleshy fruits they are also known as succulent fruits. The pericarp is fleshy, differentiated into three distinct layers, epicarp,mesocarp and endocarp.

**B- Only Types Of Inflorescences.**

**-Soliray-Racemose-Cymose-Mixed-Specialized Inflorescence.**

**8- Write on :**

**a- Fertilization**

**The process starts when pollen grains come in contact with the stigma. At that time the male gamete is fully developed inside the pollen grains also the female gamete inside the ovule.**

**A pollen tube comes out from the pollen grain the male gametes move towards the end of this tube. The pollen tube penetrates the tissue of the stigma and style and continues within the ovary to the ovule.**

**The pollen tube releases the two male gametes inside the embryo sac. One of these gametes fertilize the egg and a diploid nucleus is formed which known zygote. The other male gamete fuse with primary endosperm nucleus .**

**b- General characters of: Monocotyledon-Dicotyledon plant .**

**Embryo has one cotyledon-root adventitious-leaves parallel venation-stem closed vascular bundles –flowers 3- merous but in dicot Embryo has two cotyledon-open vascular bundles-root tapet-reticulate venation-flower pentamerous.**