

نموذج إجابة مادة المرفولوجى ٢٢١ ن

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أستاذ المادة : د/ أحمد عبد الرازق

كلية العلوم – جامعة بنها

1- Explain the following:

- a- Monopodial branching in this type of branching the main axis of the stem continues to grow vigorously due to the activity of the apical bud and the lateral branches are produced from the axillary buds in acropetal succession
- b- Dormancy
Dormancy is the rest period of the seed before germination. This period differs from minutes to years. Delayed germination may be caused by the nature of the seed coat, by the conditions of the embryo, or by a combination of both.
a- seed coat dormancy is due to the impermeability of seed coat to water and oxygen, and the mechanical resistance of the seed coat to the expansion of the developing embryo.
- c- Leaf arrangement

There are three types of phyllotaxy:

- 1- Alternate or spiral: in this type, only one leaf arises at each node.
- 2- Opposite: in this type, two leaves arise at each node, and are arranged opposite to each other. The opposite arrangement may be of two types:
 - Opposite decussate: two leaves occur at each node and each pair stands at right angle to the next pair above or below.
 - Opposite superposed: in this case, the opposite leaves are replaced one above another.
- 3- Whorled or verticillate: in this type of arrangement, more than two leaves arise at each node forming a whorl.

2- Chose the correct answer :

d- The root bears

iv- None of the above .

e- The most important functional units of the molecular factory of the leaf are situated in the

iv- Blade .

f- During germination the stored starch in the seed is acted upon by the enzyme

ii- Amylase .