

B.Sc.-I (CBCS New Pattern) Semester-II
012A - Botany Paper-I - Morphology and Anatomy of Angiosperms

P. Pages : 2

Time : Three Hours



GUG/W/24/11572(S)

Max. Marks : 50

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- Notes : 1. All questions are compulsory and carry equal marks.
2. Draw well labeled diagram wherever necessary.

1. a) Explain the root modifications that give mechanical strength. 5
b) What is modification? Describe underground modifications of stem. 5

OR

Write short note on:

- c) Types of angiosperms based on habit. 2½
d) Explain the general characters of stem. 2½
e) Explain leaf venation. 2½
f) Parts of foliage leaf (Diagram only). 2½
2. a) Describe special type of inflorescence. 5
b) Explain the types of dry fruits. 5

OR

Write short note on:

- c) Types of Flower. 2½
d) Types of placentation. 2½
e) Adhesion of stamens. 2½
f) Forms of Corolla. 2½
3. a) Explain types and functions of Simple tissue. 5
b) Describe tunica-carpus theory. 5

OR

Write short note on:

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|----|-----------------------------|----|
| c) | Cambium | 2½ |
| d) | Periderm | 2½ |
| e) | Phloem | 2½ |
| f) | Characteristics of meristem | 2½ |
4. a) What is anomalous secondary growth? Describe anomalous secondary growth in *Boerhaavia* stem. 5
- b) Explain how abnormal secondary growth occurs in dicot root with suitable example. 5

OR

Write short note on:

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|----|---|----|
| c) | Primary structure in Maize root (Diagram only). | 2½ |
| d) | Primary structure in Sunflower stem. | 2½ |
| e) | Secondary structure of Dicot stem (Diagram only). | 2½ |
| f) | Primary structure of Monocot leaf. | 2½ |
5. Write **any ten** questions in one or two lines only (Diagrams are NOT necessary). **1x10 =10**
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|-------------------------|------------------------|
| a) Pneumatophores | b) Offset |
| c) Phyllode | d) Umbel |
| e) Pappus | f) Sorosis |
| g) Conjoint, collateral | h) Laticiferous tissue |
| i) Root cap | j) Trichomes |
| k) Bulliform cells | l) Lenticels |
