

This question paper contains 3 printed pages.]

Your Roll No. ....

**502**

**Subsidiary for B.Sc. Honours/I A**  
**BOTANY – Paper II**  
**(Plant Structure)**  
**(Admissions of 2003 and onwards)**

**Time : 3 Hours**

**Maximum Marks : 50**

← (Write your Roll No. on the top immediately on receipt of this question paper.)

Attempt any **five** questions.

Attempt **all** parts of a question together.

**All** questions carry equal marks.

1. (A) Fill in the blanks : 5
- (a) The inflorescence in coriander is called as \_\_\_\_\_.
  - (b) Placentation in Solanum is known as \_\_\_\_\_.
  - (c) Pollination by water is known as \_\_\_\_\_.
  - (d) Potato tuber is the modification of \_\_\_\_\_.
  - (e) If cambium is absent between xylem and phloem the vascular bundle is called as \_\_\_\_\_.

(B) Which of the following statements are True or False ?

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- (a) Vascular bundles in dicot stem are arranged in a ring.
- (b) Aerenchyma tissue is responsible for mechanical strength.
- (c) Funicle, chalaza and micropyle lie on same vertical line in campylotropous ovule.
- (d) When the mid rib of pinnately compound leaf bears the leaflets directly it is said to be unipinnate.
- (e) Pea is an example of fleshy fruit.

2. Differentiate between any **four** of the following : 10

- (a) Parenchyma and Sclerenchyma
- (b) Epigynous and perigynous flowers.
- (c) Apocarpous and syncarpous ovary.
- (d) Natural and Artificial system of classification.
- (e) Brachysclereids and Osteosclereids.
- (f) Catkin and Capitulum.

3. Write short notes on any **four** of the following : 10

- (a) Xylem
- (b) Lateral Meristem
- (c) Insectivorous plants
- (d) Dehiscent fruits
- (e) Plant cell structure
- (f) Verticillaster

4. (a) With the help of suitable illustrations, give the differences between a monocot leaf and a dicot leaf. 5
- (b) Briefly describe Bentham and Hooker's system of classification. 5
5. Giving suitable diagrams explain the sexual reproduction in Angiosperms. 10
6. (a) Describe briefly different types of root modifications in Angiosperms. 5
- (b) Describe primary structure of dicot stem with well labelled diagram. 5
7. Draw well labelled diagrams of any **four** of the following : 10
- (a) V.S. of dicot leaf
- (b) V.S. of a flower
- (c) T.S. of anther
- (d) T.S. of monocot stem
- (e) L.S. of orthotropous ovule
- (f) 8-nucleate, 7-celled embryo sac
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