



127

II

Total No. of Questions : 21  
Total No. of Printed Pages : 2

Regd.  
No.

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Part - III  
**BOTANY - PAPER - I**  
(English Version)

Time : 3 Hours

Max. Marks : 60

**Note :** Read the following instructions carefully.

- (i) Answer ALL the questions of Section - A. Answer ANY SIX questions out of eight in Section - B and answer ANY TWO questions out of three in Section - C.
- (ii) In Section - A, questions from Sr. Nos. 1 to 10 are of "Very short answer type". Each question carries TWO marks. Every answer may be limited to 5 lines. Answer ALL the questions at one place in the same order.
- (iii) In Section - B, questions from Sr. Nos. 11 to 18 are of "Short answer type". Each question carries FOUR marks. Every answer may be limited to 20 lines.
- (iv) In Section - C, questions from Sr. Nos. 19 to 21 are of "Long answer type". Each question carries EIGHT marks. Every answer may be limited to 60 lines.
- (v) Draw labelled diagrams, wherever necessary for questions in Section - B and C.

**SECTION - A**

**Note :** Answer all the questions. Each answer may be limited to 5 lines.

10x2=20

1. Why is Mendel considered as the father of Genetics ?
2. Differentiate between apocarpous and syncarpous ovary.
3. Define the terms couplet and lead in taxonomic key.
4. How are Viroids different from Viruses ?
5. What is 'Omega Taxonomy' ?
6. Differentiate actinomorphic from zygomorphic flower.
7. What is referred to as satellite chromosome ?

8. Hydrophytes show reduced xylem. Why ?
9. Explain the Zwitterionic form of an amino acid.
10. An anther has 1200 pollen grains. How many pollen mother cells must have been there to produce them ?

### SECTION - B

**Note :** Answer any six questions. Each answer may be limited to 20 lines. 6x4=24

11. List the changes observed in angiosperm flower subsequent to pollination and fertilisation.
12. Differentiate between red algae and brown algae.
13. Give a brief account of Dinoflagellates.
14. What are the characteristics of a prokaryotic cell ?
15. What is the difference between lenticels and stomata ?
16. Give economic importance of plants belonging to Fabaceae.
17. Though redundantly described as a resting phase, interphase does not really involve rest. Comment.
18. List out the anatomical adaptations of hydrophytes.

### SECTION - C

**Note :** Answer any two questions. Each answer may be limited to 60 lines. 2x8=16

19. Describe the internal structure of a dicot root.
20. With a neat, labelled diagram, describe the parts of a mature angiosperm embryo sac. Mention the role of synergids.
21. Explain how stem is modified variously to perform different functions.