

127**III**

Total No. of Questions – 21

Regd.

Total No. of Printed Pages – 2

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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 Sections – B and C.

SECTION – A

Note : Answer **all** questions. Each answer may be limited to **5** lines :**10 × 2 = 20**

1. What does ICBN stand for ?
2. What is the principle underlying the use of cyanobacteria in agricultural fields for crop improvement ?
3. Explain how the term Botany has emerged.
4. Which organ is modified to trap insects in insectivorous plants ? Give two examples.
5. Why certain fruits are called false fruits ? Name two examples of plants having false fruits.

6. What is "Omega Taxonomy" ?
7. Match the following :

(a) Cristae	(i) Flat membranous sacs in stroma
(b) Cisternae	(ii) Infoldings in mitochondria.
(c) Thylakoids	(iii) Disc-shaped sacs in Golgi apparatus
8. What constituents of DNA are linked by glycosidic bond ?
9. Which of the four chromatids of a bivalent at prophase-I of meiosis can involve in cross over ?
10. Define population and community.

SECTION - B

Note : Answer any **six** questions. Each answer may be limited to **20** lines : $6 \times 4 = 24$

11. Give a brief account of Dinoflagellates.
12. Write a note on economic importance of Algae and Bryophytes.
13. Give a brief account on the phases of the life cycle of an angiosperm plant.
14. Write a brief note on semi-technical description of a typical flowering plant.
15. What are nucleosomes ? What are they made of ?
16. Though redundantly described as a resting phase, interphase does not really involve rest. Comment.
17. What is the difference between lenticels and stomata ?
18. Enumerate the morphological adaptations of Xerophytes.

SECTION - C

Note : Answer any **two** questions. Each answer may be limited to **60** lines : $2 \times 8 = 16$

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