127 **III**

Total No. of Questions – 21 **Regd. No.**

Total No. of Printed Pages – 2

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 × 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 × 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 dorsi-ventral leaf with the help of labelled diagram.
