

Total No. of Questions – 21

Regd.

Total No. of Printed Pages - 2

No.

--	--	--	--	--	--	--	--	--	--

Part – III
BOTANY, Paper-II
(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 **five** lines. Answer **all** these 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. Each answer may be limited to **20** lines.
- (iv) In Section – ‘C’ question 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**10 × 2 = 20****Note :** Answer **all** questions. Each answer may be limited to **5** lines :

1. Why Rhizopus is called ‘bread mould’ and ‘black mould’ ?
2. Distinguish between paraphysis and apophysis in Funaria.
3. Define ‘false indusium’ in pteris and mention its function.
4. Name the antibiotic obtained from penicillium notatum. Who first time discovered it ?
5. Define water potential. Who introduced the concept of water potential ?
6. Define apoenzyme and holoenzyme.

7. What is vernalization ? Who coined the term vernalization ?
8. What is a micropropagation ?
9. Define single cell protein and give two examples.
10. Mention poisonous mushrooms.

SECTION – B

6 × 4 = 24

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

11. Write about the cell structure of Spirogyra.
12. Explain the conjugation in Bacteria.
13. Explain the Lytic cycle.
14. “Transpiration is a necessary evil.” – Discuss.
15. Write about the importance of ecofriendly type of fertilizers [Bio-fertilizers].
16. Tabulate any eight differences between C₃ and C₄ pathways/plants.
17. Describe transcription.
18. What is mutation breeding ? Explain.

SECTION – C

2 × 8 = 16

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

19. Describe the internal structure of the leaflet of Cycas and list out the xerophytic adaptations seen in it.
20. Explain the respiratory pathway which is common for both aerobic and anaerobic respirations (Glycolysis/EMP pathway).
21. Explain the various steps in recombinant DNA technology.