

Total No. of Questions- 21

Total No. of Printed Pages- 3

Regd. No.

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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 5 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. 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

10×2=20

Note :— Answer ALL the questions. Each answer may be limited to 5 lines.

1. How does ABA bring about the closure of stomata under water stress conditions ?

2. Where does the photolysis of H_2O occur ? What is its significance ?
3. What is transformation ? Who discovered it and in which organism ?
4. What is the genetic nature of wrinkled phenotype of pea seeds ?
5. Distinguish between Heterochromatin and Euchromatin. Which of the two is transcriptionally active ?
6. What is the function of the Codon AUG ?
7. How does one visualize DNA on an agar gel ?
8. Give *one* example for each of transgenic plants which are suitable for food processing and those with improved nutritional quality.
9. Name *two* semi-dwarf varieties of rice developed in India.
10. Why does "Swiss Cheese" have big holes ? Name the bacteria responsible for it.

SECTION B

6×4=24

Note :— Answer any SIX questions. Each answer may be limited to 20 lines.

11. 'Transpiration is a necessary evil'. Explain.
12. Explain the nitrogen cycle giving relevant examples.
13. Explain the mechanism of Enzyme action.
14. What are the physiological processes that are regulated by Ethylene in plants ?

- 18. Explain the difference between...
- 19. Differentiate between the following...
- 20. Discuss the role of...
- 21. What are the advantages...
- 22. Describe the structure of...

SECTION C

- Note: Answer any two questions...
- 23. Give an account of...
- 24. Discuss the role of...
- 25. Explain the importance of...
- 26. Describe the structure of...