

0227**B**

Total No. of Questions—21

Total No. of Printed Pages—2

Regd. No.

Part III
BOTANY, Paper - II
(English Version)

*Time : 3 Hours]**[Max. Marks : 60***SECTION - A****10 × 2 = 20****Note:**(i) Answer **ALL** Questions(ii) Each Question carries **TWO** marks

(iii) All are very short answer type questions.

1. What are the physical properties of water responsible for the ascent of sap through xylem in plants?
2. What is a genophore ?
3. What is point mutation? Give an example.
4. Define hydroponics.
5. What is meant by capping and tailing?
6. What is down-stream processing?
7. The proportion of nucleotides in a given nucleic acid are: Adenine 18%, Guanine 30%, Cytosine 42%, and Uracil 10%. Name the nucleic acid and mention the number of strands in it.
8. What is green revolution? Who is regarded as Father of green revolution?
9. Which two species of sugarcane were crossed for better yield?
10. Name the scientists who were credited for showing the role of penicillin as an antibiotic.

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P.T.O.

SECTION - B

 $6 \times 4 = 24$

- Note:** (i) Answer ANY SIX questions.
(ii) Each question carries FOUR marks.
(iii) All are of short answer type questions.
(iv) Draw labelled diagrams, wherever necessary.

11. Explain the steps involved in the formation of root nodule.
12. Draw a neat labelled diagram of chloroplast.
13. Explain different types of cofactors.
14. What is ICTV? How are viruses named?
15. Give a brief account of Bt cotton
16. Explain the Co-dominance with example.
17. Write short notes on seed dormancy.
18. How many types of RNA polymerases exist in cells? Write their names and functions.

SECTION - C

 $2 \times 8 = 16$

- Note:** (i) Answer ANY TWO questions.
(ii) Each question carries EIGHT marks.
(iii) All are long answer type questions.
(iv) Draw labelled diagrams, wherever necessary.

19. Explain Calvin cycle.
20. Give a brief account of the tools of recombinant DNA technology.
21. Write brief essay on microbes in sewage treatments?

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