Board of Intermediate Education (TS)

Held on 11-03-2020

B

0227

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*

Note : Read the following instructions carefully :

1) Answer **all** 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'.

2) 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.

3) 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.

4) 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.

5) Draw labelled diagrams **wherever necessary** for questions in Sections **'B'** and 'C'.

SECTION A

10 × 2 = 20

Note : Answer **all** questions. Each answer may be limited to **5** lines.

1. Define water potential. What is the value of water potential of pure water?

2. Distinguish between apoenzyme and cofactor.

3. What are pleomorphic bacteria? Give an example.

4. Who proposed the Chromosome Theory of Inheritance?

5. What is the function of the codon-AUG?

6. What are the components of a nucleotide?

7. Name the nematode that infects the roots of tobacco plants. Name the strategy adopted to prevent this infestation.

8. What is green revolution? Who is regarded as Father of Green Revolution?

9. Why does 'Swiss Cheese' have big holes? Name the bacteria responsible for it.

10. What is Nucleopolyhedro virus being used for nowadays?

SECTION B

$6 \times 4 = 24$

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

11. "Transpiration is a necessary evil". Explain.

12. Describe in brief photorespiration.

13. Explain the steps involved in the formation of root nodule.

14. Write a note on agricultural/horticultural applications of auxins.

15. Explain the structure of T-even bacteriophages.

16. Mention the advantages of selecting pea plant for experiment by Mendel.

17. What are the differences between DNA and RNA?

18. Give a brief account of Bt cotton.

SECTION C

$2 \times 8 = 16$

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

19. Give an account of glycolysis. Where does it occur? What are the end products?

20. Give an account of the tools of recombinant DNA technology.

21. Describe the tissue culture technique. What are the advantages of tissue culture over conventional method of plant breeding in crop improvement programmes?