Roll No. _____ : 2

SVIS-N-312 A-17
B.Sc. VIth Semester Degree Examination
Botany
(Plant Physiology and Biotechnology)
Paper : 6.2
(New)

Time : 3 Hours Maximum Marks : 80

Instructions to Candidates:

*1) Answer **all** questions*

2) Diagram will enhance the value of Answers

I. Answer any **Ten** from the following in **two** or **more** sentences. **(10×2=20)**

1. What are micronutrients? Give an examples

2. Draw a labelled diagram of stomatal apparatus.

3. Define plasmolysis and deplasmolysis.

4. What are photosynthetic pigments? Give example

5. Explain chloroplast dimorphism in C_4 plants.

6. What is respiratory quotient?

7. What is bolting?

8. What are short day plants

9. Give any two scope of medical Biotechnology.

10. Give the structure of PBR - 322.

11. What is layering?

12. Define vernalization.

II. Answer any **Four** of the following. **(4×5=20)**

13. Explain transpiration pull theory.

14. Describe the mechanism of opening and closing of stomata.

15. Explain Non - cyclic photophosphorylation.

16. Explain physiological effects of Ethylene
17. Explain salt stress in plants
18. Give an account on scope of plant biotechnology.

III. Answer any **Four** of the following **(4×10=40)**

19. Explain the Calvin's cycle with schematic representation.
20. Describe the process of terminal oxidation.
21. Explain Donnan's equilibrium for passive absorption.
22. Explain Active K^+ pump hypothesis.
23. Describe the Munch's mass flow hypothesis.
24. Explain the Recombinant DNA - technology.