

S.No. 7363

PN 15 BO 2

(For candidates admitted from 2015–2016 onwards)

M.Sc. DEGREE EXAMINATION, NOVEMBER 2023.

Botany

**ANATOMY, EMBRYOLOGY, MICROBIOLOGY,
IMMUNOLOGY AND PLANT PATHOLOGY**

Time : Three hours

Maximum : 100 marks

SECTION A — (10 × 2 = 20)

Answer ALL questions.

1. Trichomes.
2. Periderm.
3. Intra Xylary Phloem.
4. Subsidiary Cells and Guard Cells.
5. Double Fertilization.
6. Apospory.
7. ELISA.
8. Eubacteria.

9. Mycotoxins.

10. Rust of wheat.

SECTION B — (5 × 7 = 35)

Answer ALL questions, choosing either (a) or (b).

11. (a) Write an account on Shoot apex and Root apex.

Or

(b) Explain about structure and functions of Cambium in plant.

12. (a) Write about the different types of Stomata in Dicot and Monocot leaf.

Or

(b) Describe the normal secondary thickening of Dicot root and stem.

13. (a) Elaborate with relevant illustration of Embryo development in dicot plants.

Or

(b) Describe Polyembryony and apomixes.

14. (a) Explain the importance and uses of Immuno electrophoresis, ELISA and RIA.

Or

(b) Describe the importance of *Cyanobacteria* and *Actinomycetes*.

15. (a) Write about Host parasite Interaction.

Or

(b) Write an account on symptoms casual organism and control measures of downy mildew of grapes.

SECTION C — (3 × 15 = 45)

Answer any THREE questions.

16. Write an essay on development of Phellogen and formation of Periderm in Angiosperms.

17. Explain about root stem transition with suitable diagrams.

18. Differentiate Microsporogenesis from Megasporogenesis with suitable diagram.

19. Write about the characteristic feature of Eukaryotic Microbes.

20. Elaborate the symptoms, casual organism and control measures of White rust of mustard and Blight disease of Rice.