

PHBOT3

Ph.D Course Work Examinations, July-2023

BOTANY

Course-III: Botany

Time: 3 Hours

Max. Marks: 70

Instructions: All sections are compulsory

SECTION – A

I. Write a short note on any FIVE of the following **5 X 5 = 25**

1. Plant quarantine order.
2. Incomplete dominance.
3. Mass spectroscopy.
4. Principle of ICN.
5. Intragenic gene interaction.
6. Prophylactants.
7. Bioactive metabolites.

SECTION – B

II. Answer any THREE of the following **3 X 10 =30**

8. Explain the detailed methods of seed and soil treatment.
9. Write about Pre-Mendelian Genetics.
10. Explain the role of embryology in solving taxonomic problems.
11. How to construct a genomic library.
12. What is pharmacognosy? Write about the different methods of raw drug analyses.

SECTION – C

III. Write an essay on any ONE of the following **1 X 15 =15**

13. Discuss in detail the macroscopic and microscopic characters of Withania with a neat diagram.
14. Elaborate on the role of cytology and molecular biology in relation to taxonomy with suitable examples.