

F 2342

Reg. No.....

Name.....

Ph.D. COURSE WORK EXAMINATION IN BOTANY, OCTOBER 2022

Course II—THEORY AND CONCEPT—BOTANY

(2020 Admissions)

Time : Three Hours

Maximum : 50 Marks

Part A

Answer any ten of the following questions.

Each question carries 4 marks.

1. Briefly describe density gradient centrifugation and its applications.
2. Explain the importance iso-electric point in protein purification.
3. What is the role of phytoalexins in plants ?
4. Write short note on FTIR.
5. Explain the protocol of chloroplast and mitochondrial genome isolation.
6. Explain the principle of NMR spectroscopy.
7. Differentiate between light and electron microscopes.
8. How radioisotopes helps to elucidate different biosynthetic pathways ?
9. Explain different antifungal and antibacterial tests of plant sample.
10. Illustrate the technique of anther culture.
11. Write a short note on transgenic animals and CPCSEA guidelines.
12. Explain the principle of gel electrophoresis and its applications.

(10 × 4 = 40 marks)

Part B

Answer any one of the following questions.

The question carries 10 marks.

13. Explain different types of chromatography and its applications.
14. Illustrate different methods of DNA sequencing.

(1 × 10 = 10 marks)