

F 2362

Reg. No.....

Name.....

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

Course II—THEORY AND CONCEPT—ZOOLOGY

(2020 Admissions)

Time : Three Hours

Maximum : 50 Marks

Part A

*Answer any ten of the following questions.
Each question carries 4 marks.*

1. Write notes on confocal microscopy.
2. What is X-ray crystallography ? Explain.
3. Differentiate between alpha, beta and gamma level taxonomy giving examples.
4. Discuss the regulations for use of animals in Research.
5. Explain FISH and its principle.
6. Describe the methodology of smear preparation.
7. Explain the technique of ultra filtration.
8. What are the computational tools for taxonomic studies. Explain.
9. Enumerate the various methods of biodiversity estimation.
10. Write notes on DNA bar coding.
11. Discuss the ethical aspects of embryonic stem cells for therapy.
12. Describe the principle and working of cryotome.

(10 × 4 = 40 marks)

Part B

*Answer any one question.
The question carries 10 marks.*

13. Explain the basic technique of PCR and its modifications citing their uses in genetic engineering.
14. Describe the methods of DNA sequencing and their advantages and disadvantages.

(1 × 10 = 10 marks)