

D 122499**(Pages : 2)****Name.....****Reg. No.....**

**SECOND SEMESTER M.Sc. DEGREE (REGULAR/SUPPLEMENTARY)
EXAMINATION, APRIL 2025**

(CBCSS)

Forensic Science

FSC 2C 10—FORENSIC BIOLOGY, SEROLOGY AND DNA PROFILING

(2020 Admission onwards)

Time : Three Hours**Maximum : 30 Weightage**

Part A

I. Answer any *four* of the following. Short Answer Questions :

- 1 What is mitochondrial DNA analysis and its use ?
- 2 Explain Gene knockouts.
- 3 Estimation of time since death.
- 4 What do you mean by defense wound ?
- 5 Explain c DNA libraries.
- 6 Enumerate the difference between plant and animal cell.
- 7 Rh system of blood group.

(4 × 2 = 8 weightage)

Part B

II. Answer any *four* of the following. Short Essay Type Questions :

- 8 How DNA typing results are interpreted ?
- 9 Describe the composition and structure of proteins ?
- 10 Describe forensic entomology with a neat labelled diagram of life cycle of insect.
- 11 Biochemical test for the identification of blood.
- 12 Write the Composition of Vaginal secretions.

Turn over

- 13 Medico-legal importance of diatoms.
- 14 Explain the different types of mechanical Injuries.

(4 × 3 = 12 weightage)

Part C

III. Answer any *two* questions. Long Essay Type Questions :

- 15 Describe the characteristics of hair to determine the species origin, race, sex and site.
- 16 Describe the procedure for collection and preservation of biological sample for DNA analysis
- 17 Describe morphological and anatomical characteristics of any two plants yielding drugs of abuse.
- 18 Draw a neat labelled diagram of the spermatozoa and describe tests for the identification of semen.

(2 × 5 = 10 weightage)