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- (b) Morphology and forensic significance of semen
- (c) Collection and preservation of blood evidences
- (d) Application of any one principle of heredity in forensic science

(200)

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 5173

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Unique Paper Code : 2234000016

Name of the Paper : Zoo GE-16; Forensic Biology

Name of the Course : B.Sc. / B. Com / B.A. Theory
Examination, May 2025

Semester : VI, UGCF

Duration : 2 Hours

Maximum Marks : 60

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt **Four** questions in all.
3. Question No. 1 is compulsory.
4. Draw well labelled diagrams wherever necessary.

1. (a) Define the following : (4)

(i) DNA fingerprinting.

(ii) Dental eruption sequence.

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(iii) Parentage testing.

(iv) Bite mark.

(b) Differentiate between the following : (8)

(i) RFLP and PCR.

(ii) STR and SNP.

(iii) Human hair and animal hair (as biological evidences in crime cases).

(iv) Mitochondrial DNA and nuclear DNA.

(c) Name the following : (3)

(i) Two methods used for DNA extraction.

(ii) Two forensic DNA databases.

(iii) Two methods used for DNA-based paternity testing.

2. (a) Write an account on the forensic identification of different types of wildlife materials. (10)

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(b) What are pug marks? How are they used in wildlife forensics? (5)

3. (a) Briefly characterize different types of bloodstains. (10)

(b) Write a short note on the forensic analysis of semen. (5)

4. (a) Discuss the role of forensic odontology in the personal identification of individuals. (10)

(b) Briefly describe the forensic relevance of microbial organisms. (5)

5. (a) Explain the process and principles of DNA profiling in forensic science. (10)

(b) Explain the role of PCR in forensic DNA analysis. (5)

6. Write short notes on any **three** of the following : (5,5,5)

(a) Saliva and its forensic significance

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