

KAMARAJ COLLEGE (Autonomous)

Accredited with A+ Grade by NAAC

(Affiliated to Manonmaniam Sundaranar University, Tirunelveli)

THOOTHUKUDI – 628 003

(5 Pages)

Reg. No:

Question. Code No : 25E01608

Sub Code : 24PEMB11

PG Degree - End Semester Examinations, April 2025

First Semester

M.Sc. MICROBIOLOGY

Elective - Forensic Science

(For those who joined in July 2024 onwards)

Time : 3 Hours

Maximum : 75 Marks

PART – A (10 × 1 = 10 Marks)

Answer ALL Questions

Choose the correct answer :

1. What is the primary goal of forensic science?
 - (a) To exonerate innocent people
 - (b) To identify suspects and bring them to justice

- (c) To punish criminals
(d) None of the above
2. The use of fire arms and ammunition in criminal investigation is known as
(a) Forensic Entomology (b) Forensic Pathology
(c) Forensic Toxicology (d) Forensic Ballistics
3. Forensic Science Labs need the assistance from
(a) Physics & Chemistry Division (b) Ballistic Division
(c) Biology Division (d) All the above
4. Forensic microbiology primarily involves the study of microbes in relation to
(a) Ancient history (b) Legal investigations
(c) Space exploration (d) Food production
5. Phadebas Test is connected with
(a) Semen (b) Saliva
(c) Blood (d) Urine
6. Alkaline Phosphatase test is related with
(a) Semen (b) Saliva
(c) Blood (d) Urine
7. Quantity of DNA generally obtained while isolating DNA from blood sample is _____

- (a) 1-2 μg (b) 3-12 μg
(c) 15-22 μg (d) Above 50 μg

8. Select DNA isolation method from the following

- (a) Organic extraction (b) Chelex extraction
(c) Differential extraction (d) All the above

9. Regarding Organic Poison

- (a) It involves animal and vegetable borne
(b) Croton oil and Castor oil are examples
(c) Snake Venom and Spider Venoms are examples
(d) All

10. Ammonium Sulphate method is used for the extraction of following poison from Viscera

- (a) Metallic poison
(b) Volatile Poison
(c) Insecticide
(d) Non Volatile Organic Phosphorous

PART - B (5 X 5 = 25 Marks)

**Answer ALL Questions choosing either (a) or (b).
Answer should not exceed 250 words.**

11. (a) Portray the branches of forensic science.

(OR)

(b) Highlight the duties of forensic scientists.

12. (a) Write about the organisational structure of state level forensic science labs in Tamil Nadu.

(OR)

(b) Sketch the functions of forensic science laboratories.

13. (a) Mention the importance of blood sample in forensic labs.

(OR)

(b) Assess the role of semen sample in solving problems.

14. (a) What do you know about STR?

(OR)

(b) Comment on RFLP.

15. (a) Make a note on the important concepts of forensic toxicology.

(OR)

(b) Explain the types of poison.

PART - C (5 X 8 = 40 Marks)

Answer ALL Questions choosing either (a) or (b).

Answer should not exceed 600 words.

16. (a) Indicate the history and development of forensic science in Tamil Nadu.

(OR)

(b) Discuss in detail about tools and techniques used in forensic science.

17. (a) How do you understand the importance of mobile forensic labs?

(OR)

(b) Write in detail about forensic microbiology.

18. (a) Measure the importance of forensic serology.

(OR)

(b) Appraise the diverse types of samples used by forensic scientists.

19. (a) PCR technique is a boon for forensic scientists – Support.

(OR)

(b) Describe the role of DNA in solving paternity disputes.

20. (a) Write an essay on forensic toxicology.

(OR)

(b) Discuss in detail about the diverse types of poison with their mode of action.