



MEDICAPS
UNIVERSITY

Faculty of Science

End Semester Examination May 2025

FS3CO15 Forensic Medicine

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|------------------|----------|-----------------------|------------------------------|----------|-----------|
| Programme | : | B. Sc. (Hons.) | Branch/Specialisation | : | FS |
| Duration | : | 3 hours | Maximum Marks | : | 60 |

Note: All questions are compulsory. Internal choices, if any, are indicated. Assume suitable data if necessary. Notations and symbols have their usual meaning.

| Section 1 (Answer all question(s)) | | | | | Marks | CO | BL |
|---|---|---|--|--|--------------|-----------|-----------|
| Q1. | What is the process of legally reopening a grave to examine a body called? | | | | 1 | 1 | 2 |
| | <input type="radio"/> Cremation | <input type="radio"/> Embalming | | | | | |
| | <input checked="" type="radio"/> Exhumation | <input type="radio"/> Entombment | | | | | |
| Q2. | Which type of euthanasia involves actively administering a substance to cause death? | | | | 1 | 1 | 1 |
| | <input type="radio"/> Passive euthanasia | <input checked="" type="radio"/> Active euthanasia | | | | | |
| | <input type="radio"/> Involuntary euthanasia | <input type="radio"/> Palliative sedation | | | | | |
| Q3. | Which of the following is not a standard procedure in processing evidence at a death scene? | | | | 1 | 2 | 1 |
| | <input checked="" type="radio"/> Moving the body before documenting its position | <input type="radio"/> Packaging evidence in appropriate containers | | | | | |
| | <input type="radio"/> Collecting biological samples with sterile tools | <input type="radio"/> Photographing the scene before collecting evidence | | | | | |
| Q4. | What is a forensic pathologist's primary role in a death investigation? | | | | 1 | 2 | 1 |
| | <input type="radio"/> Photographing the crime scene | <input type="radio"/> Making arrests in homicide cases | | | | | |
| | <input checked="" type="radio"/> Conducting an autopsy to determine the cause of death | <input type="radio"/> Collecting witness statements | | | | | |
| Q5. | Which postmortem change is characterized by the stiffening of muscles after death? | | | | 1 | 3 | 2 |
| | <input type="radio"/> Algor mortis | <input checked="" type="radio"/> Rigor mortis | | | | | |
| | <input type="radio"/> Livor mortis | <input type="radio"/> Decomposition | | | | | |
| Q6. | Which method is used to estimate the time since death? | | | | 1 | 3 | 2 |
| | <input type="radio"/> Measurement of body temperature | <input type="radio"/> Rigor mortis progression | | | | | |
| | <input type="radio"/> Insect activity on the body | <input checked="" type="radio"/> All of the above | | | | | |
| Q7. | What is the primary objective of an investigator at a death scene? | | | | 1 | 4 | 1 |
| | <input type="radio"/> Collecting personal belongings of the deceased | <input type="radio"/> Interview all witnesses first | | | | | |
| | <input checked="" type="radio"/> Ensuring scene security and preserving evidence | <input type="radio"/> Moving the body for autopsy immediately | | | | | |
| Q8. | Which of the following statements is true about a dying declaration? | | | | 1 | 4 | 1 |
| | <input type="radio"/> It must be recorded by a magistrate only. | <input type="radio"/> It is considered valid only if the victim survives after making it. | | | | | |
| | <input checked="" type="radio"/> It is a statement made by a person who believes they are about to die, regarding the cause of their death. | <input type="radio"/> It is always recorded in written form. | | | | | |

- Q9.** What type of evidence can be collected from a bite mark for forensic analysis? 1 5 2
- ☐ Saliva for DNA profiling
 ☐ The shape and pattern of the bite mark
 ☒ All of the above
 ☐ Skin bruising and wound characteristics
- Q10.** Which of the following is a primary application of forensic odontology? 1 5 1
- ☐ Handwriting analysis
 ☒ Human identification through dental records
 ☐ DNA profiling
 ☐ Blood analysis

Section 2 (Answer all question(s))

Marks CO BL

- Q11.** Mention two fundamental aspect of forensic medicine. 2 5 2

| Rubric | Marks |
|---|-------|
| Fundamental aspect of forensic medicine- 01 Mark Each | 2 |

- Q12. (a)** Explain the duties of medical practitioners with respect to forensic medicine. Discuss the ethical aspects of medical practice, including the importance of consent and its types. 8 5 2

| Rubric | Marks |
|---|-------|
| Duties of Medical Practitioners in Forensic Medicine- 4 marks | 4 |
| Ethical Aspects of Medical Practice- 4 marks | 4 |

(OR)

- (b)** Define post-mortem artifacts and explain their types. Discuss their impact on forensic investigations with relevant examples.

| Rubric | Marks |
|--|-------|
| Definition -2 marks Types and explanation-4 marks | 6 |
| Impact on forensic investigations-2 marks | 2 |

Section 3 (Answer all question(s))

Marks CO BL

- Q13.** Name and explain two common methods used to locate buried bodies. 2 3 2

| Rubric | Marks |
|---------------------------------------|-------|
| Name- 01 Mark Explanation- 01 Mark | 2 |

- Q14. (a)** Explain the concept of indexing a death investigation and its significance. 8 5 2

| Rubric | Marks |
|---------------------------|-------|
| Concept Indexing- 4 marks | 4 |
| Significance- 4 marks | 4 |

(OR)

- (b)** Explain the step-by-step procedure for exhumation in forensic investigations. What precautions must be taken to preserve evidence during the exhumation process?

| Rubric | Marks |
|--|-------|
| Procedure for exhumation- 05 Marks Precaution- 03 Marks | 8 |

Section 4 (Answer all question(s))

Marks CO BL

Q15. Define Forensic pathology.

2 3 1

| Rubric | Marks |
|------------|-------|
| Definition | 2 |

Q16. (a) Describe the various changes that occur in the human body after death. Explain their forensic significance in estimating the post-mortem interval.

8 3 2

| Rubric | Marks |
|--|-------|
| Name of changes- 2 Marks Explanation- 3 Marks | 5 |
| Forensic significance-3 Marks | 3 |

(OR)

(b) What are mechanical injuries? Classify and explain the different types of mechanical injuries.

| Rubric | Marks |
|--|-------|
| Definition- 2 marks | 2 |
| Classification-02 Marks Explanation- 04 Marks | 6 |

Section 5 (Answer all question(s))

Marks CO BL

Q17. Define the terms:

2 1 1

- (i) Dying Declaration
- (ii) Dying Deposition.

| Rubric | Marks |
|---------------------------|-------|
| Definition - 01 Mark Each | 2 |

Q18. (a) Discuss the significance of witness testimony in criminal investigations. What are the major challenges encountered when interviewing witnesses and onlookers?

8 1 2

| Rubric | Marks |
|-----------------------------------|-------|
| Significance of witness testimony | 4 |
| Major challenges | 4 |

(OR)

(b) Explain the systematic process followed by an investigator at the scene of death. Discuss the importance of securing the crime scene and collecting physical evidence.

| Rubric | Marks |
|--|-------|
| Explanation of Step- 06 Marks Importance of securing and collecting physical evidence- 02 Marks | 8 |

Section 6 (Answer any 2 question(s))

Marks CO BL

Q19. What are bite marks? Describe the methods used for collecting and preserving bite mark evidence.

5 5 2

| Rubric | Marks |
|--|-------|
| Definition of Bite marks- 02 Marks Methods for collection- 03 Marks | 5 |

Q20. Explain the role of forensic odontology in identifying victims of mass disasters. What challenges are faced during the identification process? 5 5 2

| Rubric | Marks |
|---|-------|
| Role of Forensic Odontology- 03 Marks Challenges- 02 Marks | 5 |

Q21. Define forensic odontology. Classify the different types of human teeth and describe their functions? 5 5 2

| Rubric | Marks |
|---|-------|
| Definition -02 Marks Classification and function- 03 Marks | 5 |
