

M.Sc Sem-3 Examination

503

Forensic Science

November-2024

Time : 2-30 Hours]

[Max. Marks : 70

Question 1 Answer the following questions:

- i. Which technique is used to reconstruct mutilated faces? Explain the technique in detail. 7Marks
 - ii. Determine race using anatomical and morphological characteristics 7Marks
- OR**
- i. Explain Portrait Parley and its use in crime investigation. 7Marks
 - ii. Explain how are long bones useful in personal identification? 7Marks

Question 2 Answer the following questions:

- i. What is forensic odontology? Explain various stages of tooth development with diagram and its forensic significance during mass disaster. 7Marks
 - ii. Determination of sex based on morphological features. 7Marks
- OR**
- i. How is sex determined from the skull and pelvic girdle in forensic anthropology, and provide a visual diagram illustrating the key anatomical features and differences that are used for this purpose?" 7Marks
 - ii. "How do forensic anthropologists estimate the probable age of skeletal remains, from anatomical, histological, and radiographic methods and indicators they use in this age estimation process?" 7Marks

Question 3 Answer the following questions:

- i. "How does forensic medicine contribute to the medico-legal process of identifying individuals in cases of mass disasters and criminal investigations and what are the key methods and challenges involved in personal identification through forensic means?" 7Marks
 - ii. What are the key mechanisms and forensic indicators associated with various forms of mechanical asphyxia? 7Marks
- OR**
- i. Explain Medicolegal and Postmortem findings in cases of Hanging and strangulations. 7Marks
 - ii. Elaborate medicolegal aspects of mechanical Injuries. 7Marks

Questions 4 Answer the following questions:

- i. What are the critical medico-legal considerations in the investigation, examination, and prosecution of sexual offenses? 7Marks
 - ii. What is Rule of Nine? Explain in detail. 7Marks
- OR**
- i. Elucidate the procedures involved in conducting a forensic investigation of a deceased body for the purpose of estimating the postmortem interval. 7Marks
 - ii. Explain criminal profiling. What are the possible methods used by profiler? 7Marks

Questions 5 Attempt any Seven out of Twelve.

14Marks

1. Which Somatoscopy charts are given for upper extremities?
2. Formula to calculate the brachial index
3. What is the need for personal identification in criminal and civil cases?
4. What is facial index? How you classify facial index with their respective range.
5. What are P300 waves?
6. Define Forensic Hypnosis.
7. Give the principle of the polygraph.
8. What is livor mortis, and how can it help estimate the time of death?
9. Describe the main difference between antemortem and postmortem injuries.
10. What role does toxicology play in forensic investigations?
11. How does forensic anthropology assist in identifying skeletal remains?
12. What are the three primary stages of decomposition in a body after death?

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