

UNIVERSITY OF JAFFNA, SRI LANKA
SECOND EXAMINATION FOR MEDICAL DEGREES PART -I (1st) – JANUARY 2021
FORENSIC MEDICINE

Date: 04.01.2021

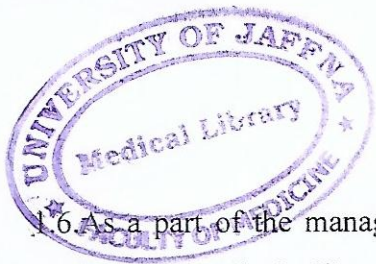
Time: 9.00 am to 12.00 pm (3 hours)

ANSWER ALL THE FIVE QUESTIONS

Answer each part in a separate answer book.

PART A

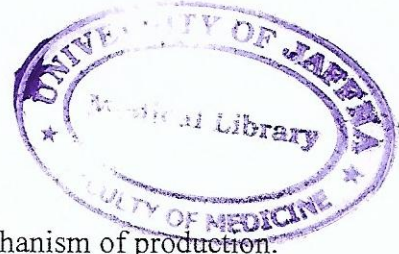
1. A 7-year-old male child living in a foster home was admitted to the casualty ward with a history of fall and limping of the right lower limb. X-ray examination revealed a fracture in the lower limb and based on the fracture pattern treating doctor suspected possible maltreatment of the child.
 - 1.1. Briefly describe the type of long bone injuries that are resulted from child - maltreatment. (20 marks)
 - 1.2. List the possible pathological conditions that can be considered as a differential diagnosis in suspected bone fractures in children. (10 marks)
 - 1.3. List five important points in history that can give suspicion about a physical child - maltreatment. (10 marks)
 - 1.4. Briefly discuss three injury patterns in the skin that can be caused by physical child- maltreatment. (15 marks)
 - 1.5. During the history-taking child revealed a history of possible chronic sexual (anal) abuse. Briefly discuss the examination findings in chronic anal penetration (20 marks)



- 1.6. As a part of the management of this child, a case conference was arranged by the judicial medical officer. List the members usually take part in a case conference of a diagnosed child abuse. (10 marks)
- 1.7. Briefly discuss important points that are usually discussed in case conferences in diagnosed child abuse. (15 marks)
2. A 23-year-old girl was found dead in an abandoned building. A nylon rope was found around the neck and her clothing was disturbed. She was last seen with her boyfriend at a night party on the previous day.
- 2.1. List the medico-legal issues in this case (15 marks).
- 2.2. Discuss the external and internal findings of the ligature strangulation (30 marks).
- 2.3. Discuss how would you confirm or exclude the sexual violence in this case (40 marks)
- 2.4. List the samples that you may obtain during the autopsy for toxicological analysis and mentions the drugs/substance that you would check in this case. (15 marks).

PART B

3. The body of an identified adult male who was missing from home for the past 3 days is found floating in a lake.
- 3.1. Outline the possible circumstances. (20marks)
- 3.2. What autopsy findings may indicate that the body was surreptitiously disposed off in a lake? (20marks)
- 3.3. Discuss how you would establish that the death occurred in water including the possible causes and mechanisms of death. (60 marks)



4.

4.1. Define contrecoup injury of brain and describe the mechanism of production. (25 marks)

4.2. Describe how you would differentiate a spontaneous from a traumatic intracerebral haemorrhage. (25 marks)

4.3. A 40 years old male was brought to hospital in a state of altered consciousness. No proper history was available. Examination and investigations revealed a scalp contusion, skull fracture and a small extra dural haemorrhage. Glasgow Coma scale (GCS) was 12. He was observed and managed conservatively in neurosurgical unit and discharged on the third day.

4.3.1. Define the term "Hurt" (10 marks)

4.3.2. Discuss the terms Grievous hurt and Non grievous hurt. (20 marks)

4.3.3. Discuss the medico- legal classification of injuries/category of hurt in the case scenario mention above. (20 marks)

5. The death of a man who had been treated surgically in hospital for a heart condition (aortic valve replacement and coronary artery by-pass graft) has been reported to the police for an inquest. The family of the deceased alleges that

- A. The surgeon's poor skill caused his death,
- B. The surgery was unnecessary,
- C. The mechanical heart valve used was improperly manufactured and sterilized

5.1. Briefly describe the medical negligence (20 marks)

5.2. State four (4) criteria needed to fulfilled to prove a case of medical negligence (20 marks)

5.3. Briefly describe how you would establish medical negligence in the case mention above? (40 marks)

5.4. Outline defenses for a doctor against medical negligence allegations (20 marks)