



FACULTY OF MEDICINE UNIVERSITY OF RUHUNA

Third Examination for Medical Degrees (Part II) – April 2017

FORENSIC MEDICINE - PAPER I

Answer ALL FIVE Questions.

9.00 a.m. to 12.00 noon (3 hours)

Answer each PART in a SEPARATE BOOK.

Part A

1. A 20-year old man was knocked down by a motor cyclist. He was thrown away for several meters. The death was pronounced at the OPD.

- 1.1 Describe the inquest procedure in this case. (20 marks)
- 1.2 List the steps of the autopsy examination of this case. (20 marks)
- 1.3 Describe the injury pattern you expect to see at the autopsy. (20 marks)

The motor cycle rider was produced for medico-legal examination.

- 1.4 State the objectives of the medico-legal examination of the motor cyclist. (20 marks)
- 1.5 Describe how you would obtain consent from him for medico-legal examination. (20 marks)

2. A dead body of an elderly male was found lying in a bus stop. The body looked fresh.

- 2.1 List the medico-legal issues of this case. (15 marks)
- 2.2 Briefly describe how you would perform the external examination of this death at the autopsy room. (20 marks)
- 2.3 List the methods you could use to confirm the identification of this death. (20 marks)

During the dissection, the right lung weighed 600g. The cut surface was grey in colour. There were multiple small cavities with collection of pus.

- 2.4 What is the most possible cause of death? (10 marks)
- 2.5 What are the investigations that you would do to confirm the cause of death? (15 marks)
- 2.6 State the possible findings of those investigations. (20 marks)

Part B

3. A 35-year-old apparently healthy executive officer was found lying unresponsive in the bed in his apartment by the police following an emergency call. There was a 2 mL syringe on the side table beside his bed. A small empty bottle and partially burnt cigarettes were also found at the scene. This death was informed to the judicial medical officer by the Police.
- 3.1 What is the most likely substance involved in this case? *(5 marks)*
- 3.2 Describe the metabolism of above stated substance in the body. *(20 marks)*
- 3.3 State the essential factors of your approach to the death scene investigation of this case. *(15 marks)*
- 3.4 Describe the findings that you would expect during the external examination of the deceased. *(20 marks)*
- 3.5 Describe the pathophysiology of the internal findings expected at the autopsy. *(20 marks)*
- 3.6 Describe the special precautions you would adopt when performing the autopsy of this case. *(20 marks)*

Part C

4. A 28-year-old mother of two children was found suspended by a nylon rope inside a house following police investigations. The incident was informed to the police by the husband of the deceased who witnessed the event after arriving home at late evening. It was observed that the arrangements in the living room were disturbed.

- 4.1 Describe how you would perform the death scene examination of the case. *(20 marks)*

It was revealed at the post-mortem examination that the deceased had multiple rounds of ligature around the neck and the ligature has deeply entrenched into the skin in some areas of the lower neck.

- 4.2 How would you distinguish hanging from ligature strangulation in this case? *(20 marks)*

It was further noted that the female was sexually abused. No undergarments were observed on the body.

- 4.3 Describe the post-mortem findings that you would expect in relation to non-consensual sexual intercourse in this case. *(20 marks)*
- 4.4 Describe the special dissections that you would adopt in the case. *(25 marks)*

- 4.5 Briefly state the legal provisions against non-consensual sexual intercourse in Sri Lanka. *(15 marks)*
5. A group of five inmates of a children's home was produced for medico-legal examination by a special police team attached to National Child Protection Authority. The group includes three boys and two girls and their ages were between 12-16 years. They were alleged to be physically and sexually abused by the administrators of the institution.
- 5.1 How would you plan for the crime scene examination of this case? *(10 marks)*
- 5.2 How would you obtain consent from the children for medico-legal examination? *(10 marks)*
- 5.3 Discuss the ethical principles underlying the medico-legal examination of these children. *(25 marks)*
- 5.4 Describe the essential steps of examination to confirm that the said children are physically abused. *(25 marks)*
- 5.5 Discuss the role of other medical and non-medical sectors in the management of child victims in this case. *(10 marks)*
- 5.6 Briefly describe the legal provisions against child abuse in the Penal Code of Sri Lanka. *(20 marks)*