



FACULTY OF MEDICINE UNIVERSITY OF RUHUNA

Third Examination for Medical Degrees (Part II) – December 2014

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/ ✓ *five arm*
An unidentified young male was found dead by the side of the road. There was a close range rifled firearm injury on the left temporal area with exit wound on the right parietal area of the head.

- 1.1 Describe the relevant inquest procedure in this case. (10 marks)
- 1.2 Describe the external and internal injuries that you would expect on the head the victim. (25 marks)
- 1.3 List the investigations you would perform at the autopsy giving reasons. (15 marks)
- 1.4 How would you determine the manner of death? (20 marks)
- 1.5 How would you confirm the individual identification of the deceased? (20 marks)
- 1.6 How would you write the cause of death in the post-mortem report? (10 marks)

2/ ✓ A 55-year-old woman who was living alone in her house was found dead in her bed. The body was naked, stiff, looked fresh and was in supine position. Fixed hypostasis was observed on the back of the body. There was a 0.25 cm width, deep imprint abrasion encircling the upper neck. There were multiple circular shape bruises in the neck. The scene was disturbed. *> 12 hrs*

- 2.1 State three medico-legal issues related to this case. (10 marks)
- 2.2 Describe your crime scene examination on this death. (20 marks)
- 2.3 List three special dissections you would perform at the autopsy. (10 marks)
- 2.4 Describe the possible internal injuries that you would expect to see in the neck during the dissection. (25 marks)
- 2.5 How would you write the possible cause of death in the post-mortem report? (15 marks)
- 2.6 How would you determine the time since death? (20 marks)

Part B

3/ ✓ *Niyagala*
A 30-year-old farmer developed nausea and vomiting 3 hours after his lunch. He developed rice water diarrhoea one hour later. His lunch consisted of rice and a few pieces of sweet potatoes. He was admitted to a peripheral unit and the medical officer suspected an incident of plant poisoning. *lunch → 1hr → di*
N/V

- 3.1 What is the most likely plant involved in this case? (10 marks)
- 3.2 State the toxic substances causing these symptoms. (10 marks)
- 3.3 What are the other signs of poisoning? (15 marks)
- 3.4 Briefly mention how you would treat this patient. (15 marks)

The patient was transferred to a general hospital and he recovered from the acute poisoning state. However he developed late signs and symptoms of poisoning.

- 3.5 What are these late symptoms and signs? (20 marks)
- 3.6 What is the mechanism of causing late symptoms? (10 marks)
- 3.7 If patient died in the late stage what are the features that you would expect in the post-mortem examination? (20 marks)

Part C

RTA ✓

A 35-year-old male pedestrian victim of a road traffic trauma incident was admitted to a surgical casualty ward with fractures on both right upper and lower limbs and multiple bruises and abrasions on the back.

- 4.1 What are the medico-legal issues in this case? (15 marks)
- 4.2 How would you obtain informed consent from the patient? (20 marks)
- 4.3 What are the important issues that you have to consider when completing the medico-legal examination form (MLEF)? (20 marks)
- 4.4 How would you reconstruct the incident with the observed injury pattern? (15 marks)

He was stable initially but developed severe hypoxaemia and respiratory insufficiency, 72 hours after admission. He developed focal neurological signs, including hemiplegia, aphasia, apraxia and visual field disturbances. He also had a petechial rash in the oral mucous membrane and skin folds of the upper body, neck and the axilla.

- 4.5 What is the most likely pathological condition? → **Fat embolism** (10 marks)
- 4.6 Describe the autopsy findings that you would expect if this patient died. (20 marks)

Infanticide ✓

The police have received information about disposal of a newborn baby died due to unnatural circumstances in a semi-urban area. The body was recovered by scene of crime officers (SOCO) from a shrub land adjacent to a community habitat. It was revealed that the baby had multiple injuries in the neck due to sharp force trauma.

- 5.1 What are the medico-legal issues of this case? (10 marks)
- 5.2 What is the role of the police in this case? (10 marks)
- 5.3 Describe the important steps of the post-mortem examination procedure that you would follow in this case. (15 marks)
- 5.4 How would you establish the occurrence of a live birth in this case? (10 marks)
- 5.5 How would you establish the maturity of the deceased baby? (10 marks)

The offender was traced by the police and she happened to be the mother of the child who had a recent unattended delivery at home.

- 5.6 Discuss the important aspects of medico-legal examination of the alleged mother. (20 marks)
- 5.7 Describe the Sri Lankan law related to this offence. (15 marks)
- 5.8 Briefly discuss the differences between above legal provisions and the law related to abortion in Sri Lanka. (10 marks)