



Faculty of Medicine University of Ruhuna
Third Examination for Medical Degrees (Part II) – December 2022

Forensic Medicine Paper I

Monday 12th December 2022

9.00 am to 12.00 noon
Three hours

Answer **ALL FIVE** questions.
Answer each **PART** in a **SEPARATE** book.

Part A

01.

1.1 Alcohol is the commonest abusive substance in the world which cause numerous medico-legal and health related issues.

1.1.1 Describe different clinical features of an alcohol intoxicated person in relation to different concentrations. *(25 marks)*

1.1.2 List **five (5)** long term health related issues of alcohol abuse. *(10 marks)*

1.2 A driver of a car was arrested by the police following a traffic accident where a pedestrian was hit on a pedestrian crossing. The driver appeared confused and was produced to a doctor for medico legal examination.

1.2.1 State **three (3)** objectives of medico-legal examination of this driver. *(10 marks)*

1.2.2 Discuss the issues related to obtaining the consent from this driver for medico-legal examination. *(20 marks)*

1.2.3 List the clinical features that should be elicited by the doctor to determine the level of intoxication. *(25 marks)*

1.2.4 State the law related to drinking and driving in Sri Lanka. *(10 marks)*

02.

2.1 A 35-year-old woman was brought to the hospital by the family members with a single stab injury to the mid abdomen. An emergency laparotomy was performed and cut injuries on the mesentery and small bowel loops were identified and sutured. Two liters of blood was transfused.

2.1.1 Define stab injury. *(10 marks)*

2.1.2 List **three (3)** medico-legal issues related to the examination of this patient. *(10 marks)*

2.1.3 Briefly describe the clinical findings you would consider when determining the category of hurt. *(20 marks)*

2.1.4 What is the most possible category of hurt in this situation? *(10 marks)*

2.2 Two days after the surgery the patient developed fever and abdominal pain. In spite of the treatment she died on the 6th day after the surgery.

2.2.1 Describe the death investigating procedure of this death. *(15 marks)*

2.2.2 Describe how you would determine the manner of death of this person. *(20 marks)*

2.3 The police have recovered 2 knives from the scene of crime and asked the doctor to assist in identification of the offending knife.

Describe your involvement as the doctor in this regard. *(15 marks)*

Part B

03.

3.1 A 14-year-old girl was admitted to a tertiary care hospital with a positive urine hCG test. She was referred for medico-legal examination. On further inquiry by the JMO, she revealed repeated sexual abuse by her father for the last 2 years.

3.1.1 Define statutory rape. *(10 marks)*

3.1.2 List **five (5)** important medico-legal issues in this scenario. *(15 marks)*

3.1.3 Briefly describe the problems associated with obtaining a valid consent from this child. *(20 marks)*

3.1.4 Outline the medico-legal management of this child. *(20 marks)*

3.2 On medico-legal examination, she was found to have multiple contusions over her buttocks and back. She admitted repeated assault by her father over the last few days.

3.2.1 Define contusion. *(05 marks)*

3.2.2 Briefly describe the medico-legal importance of contusions. *(15 marks)*

3.2.3 List **three (3)** possible complications of contusion. *(15 marks)*

04.

4.1 A 37-year-old patient developed peritonitis following appendisectomy. On reopening of the abdominal cavity, pair of scissors was found inside.

4.1.1 Define medical negligence. *(10 marks)*

4.1.2 List different types of medical negligence. *(25 marks)*

4.1.3 Indicate the type of medical negligence in this scenario with reasons. *(25 marks)*

4.1.4 List the main steps needed to be fulfilled to prove medical negligence at the court of law. *(25 marks)*

4.1.5 List **three (3)** defenses for the doctor against the allegation of medical negligence in this scenario. *(15 marks)*

Part C

05.

5.1 A complaint was received by police from a businessmen regarding missing of his driver with the vehicle. Six months later, a major street robbery was reported to a police station in a remote city and the details of the incident include the use of a vehicle by the robbers similar to the description of the vehicle which was stolen earlier.

It was revealed later that the stolen vehicle was buried in a thick jungle area distant to the remote city on the orders of this businessman. The Police decided to unearth the vehicle after obtaining a court order.

5.1.1 State **five (5)** important medico-legal issues in this scenario. *(20 marks)*

5.1.2 State **five (5)** advices that you would give to SOCO team which is ready to deploy for the crime scene examination of the burial place. *(25 marks)*

5.2 The said area was searched by the police and they found several pieces of burnt bones. The search was stopped and the magistrate was informed. The magistrate ordered the consultant forensic pathologist of the area to immediately report to the scene for a thorough examination.

5.2.1 If you are the on call forensic pathologist attending this scene, state **five (5)** essential steps of your examination process. *(20 marks)*

5.2.2 Briefly explain how you would conduct the laboratory examination of the recovered bony remains to establish identity? *(20 marks)*

5.2.3 State the relevant forensic investigations that can be carried out on all trace evidence recovered in this case. *(15 marks)*