

Master Copy

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**MD (FORENSIC MEDICINE) EXAMINATION (2017 PROSPECTUS) -**  
**AUGUST/SEPTEMBER 2020**

**Date:- 21<sup>st</sup> August 2020**

**Time:- 9.00 a.m. – 12.00 noon**

**SEQ PAPER**

**Index No. ....**

Answer **all six (06)** questions.  
Answer the questions in the space provided.

1. A 45-year-old male was found by the side of a road with a compound fracture of right lower leg and was admitted to the emergency treatment unit. On admission, he was confused, restless and smelling of alcohol.

On examination, his blood pressure was 70/55 mmHg and pulse was 120 beats/minute. He was found to have lacerated posterior tibial artery with heavy bleeding at the fracture site. All the emergency measures were taken including a blood transfusion and he was immediately taken to the operation theatre for vascular surgery. However, he developed sudden cardiac arrest soon after administration of an intravenous anaesthetic drug and expired in spite of resuscitation.

You are the consultant Judicial Medical Officer of the hospital.

1.1. List five (05) key medico legal issues you would need to address in this case. (05 marks)

.....  
.....  
.....  
.....  
.....

1.2. Outline the procedure you would follow to find solutions to the issues mentioned above. (10 marks)

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....





2. A 35-year-old mother of two children presented to an obstetrician and gynaecologist (VOG) complaining of slight bleeding per-vaginum following an amenorrhoea for 7 weeks. Urine HCG test was positive. However, the VOG stated he could not find a viable sac or foetus at ultrasound scan examination and recommended urgent evacuation at a private hospital. She underwent the procedure after signing the consent forms and paid hospital charges and professional fees. Two weeks later she continued to have nausea and vomiting and she consulted another VOG who confirmed that she was continuing with her pregnancy and there is a live foetus of 7 to 9 weeks.

The woman alleges that the first VOG had tried to abort her live pregnancy for financial gains and worries that the procedure would have caused the baby to be disabled. She complained to the police against the first VOG.

2.1. The police intend to charge the first VOG for criminal abortion.  
Give your opinion to the police. (20 marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

2.2. List the criteria that need to be fulfilled to complete a charge of medical negligence. (10 marks)

.....

.....

.....

.....

.....



2.4. Seven months later you are requested to perform an autopsy on a 3-day old infant found dead at home. The autopsy revealed that the infant was a term, healthy baby who had been smothered to death. You discover that this is the same mother who presented 7 months ago with the allegation of criminal abortion.

State your opinion to the court of law summarizing the autopsy findings that would have led you to arrive at this conclusion of smothering. (20 marks)

.....

.....

.....

.....

.....

.....

.....

2.5. Police investigations revealed that the offence was committed by the mother. State how you can assist the prosecutor with necessary scientific explanations in charging this mother with the relevant offence. (20 marks)

.....

.....

.....

.....

.....

.....

.....

3. You performed an autopsy of a 35-year-old man who collapsed and died during an arrest by police. During the autopsy you found no evidence of a traumatic cause of death.

3.1. Name five (05) types of investigations or consultations (pre and post autopsy) you would do in this case. (05 marks)

.....  
.....  
.....  
.....  
.....

3.2. Name five (05) structural heart conditions you are most likely to find during the autopsy? (05 marks)

.....  
.....  
.....  
.....  
.....

3.3. Briefly describe the microscopic findings of two (02) of the conditions you have mentioned in 3.2. (20 marks)

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....



3.4. List five (05) potential genetic causes of sudden cardiac death in a structurally normal heart. (05 marks)

.....  
.....  
.....  
.....  
.....

3.5. Discuss the challenges in arriving at the conclusion of restraint asphyxia as a cause of death in this case. (30 marks)

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

3.6. List five (05) conditions which need molecular diagnosis in autopsy practice. (15 marks)

.....  
.....  
.....  
.....  
.....







5. A 17-year-old girl is brought to you for medico-legal examination. She alleges that 03 persons forced open the house door and had sexual intercourse with her, when she was home alone about 12 hours ago.

On examination there are 2 bite marks on her breast and one on her thigh. The bite mark on her thigh has intermittent lacerations and contusions but no abnormalities in the central area. A discoid contusion of 1 cm diameter is seen on the outer aspect of her thigh.

On questioning, the mother states that the girl has no birth certificate and she is not sure of her date of birth as well.

Genital examination reveals an attenuated hymen.

5.1. Briefly explain the process of three (03) investigations that you would carry out to assist the criminal justice system in order to identify or exclude the suspects. (15 marks)

.....  
.....  
.....  
.....  
.....  
.....

5.2. State two (02) features detected in this case that would suggest nonconsensual sexual intercourse. (10 marks)

.....  
.....

5.3. Discuss giving reasons, three (03) referrals to relevant professionals you would make in this case. (15 marks)

.....  
.....  
.....  
.....  
.....

.....  
.....  
.....  
.....  
.....

5.4. Write a referral note regarding this victim to one (01) of such professionals you mentioned in 5.3. (15 marks)

.....  
.....  
.....  
.....  
.....  
.....

5.5. Describe the additional features you would look for in the genital examination to come to conclusions regarding the hymenal findings. (15 marks)

.....  
.....  
.....  
.....  
.....

5.6. On questioning you suspect that the girl is not mentally stable. Briefly discuss the steps you would take. (10 marks)

.....  
.....  
.....







