MD (FORENSIC MEDICINE) EXAMINATION JULY, 1990

Date: 2nd July 1990 Time: 2.00 p.m.- 5.00 p.m.

PAPER I

- 1. Discuss, highlighting the difficulties in particular, the interpretation of findings obtained in the course of an examination of a married female, brought to you complaining of rape.
- 2. Discuss the mechanisms and lesions that may lead to death, following a blow on the head.
- 3. Discuss the limitations of the value of post mortem changes in determining the time since death.
- 4. Discuss the role of the medical witness in a court of law.

MD (FORENSIC MEDICINE) EXAMINATION <u>JULY, 1990</u>

Date: 3rd July, 1990 Time 9.00 a.m. - 12.00 noon

PAPER 11

- 1. Describe the possible artefacts that may be produced by attempted resuscitation.
- 2. Discuss 'automatism' in forensic practice.
- 3. Outline the protective functions of a car seat belt.
- 3. Clarify the concept 'endangering life'.
- 5. Describe the causes of a 'black eye'.
- 6. State what must be proved in law before a plaintiff can succeed in an allegation of medical negligence.
- 7. Outline the difficulties that may be encountered in the detection of entrance wounds in the head, caused by rifled weapons.
- 8. Describe the possible autopsy findings in a victim of fatal heroin abuse.
- 9. Discuss the differentiation at autopsy of ante mortem from postmortem burning.
- 10. Describe the pathological features (macro and micro) of the heart, in the following.
 - A. Alcoholic cardiomyopathy
 - B. Viral myocarditis

MD (FORENSIC MEDICINE) EXAMINATION JULY 1991

Date: 8th July, 1991 Time: 2.00 p.m. - 5.00 p.m.

PAPER I

- I. Discuss the differential diagnosis of "Drunkenness".
- 2. A 40-year old man taken ill on an international flight dies in the arrival area at the Colombo Airport. Discuss the possible causes of death and your investigations in order to ascertain it.
- 3. A partially clothed decapitated body of an adult is found on the sea beach.
 - Discuss how you will establish the identity of the deceased.
- 4. Write a critical review of the methods used to estimate the "time since death"

MD (FORENSIC MEDICINE) EXAMINATION <u>JULY, 1991</u>

Date: 9th July, 1991 Time: 9.00 a.m. - 12.00 noon

PAPER II

- 1. Discuss the legal and ethical involved in obtaining organs for transplantation.
- 2. Describe the macroscopic and histological appearances of the "blast lung".
- 3. Outline the role of photography in medico-legal practice.
- 4. Describe the withdrawal manifestations in heroin dependence.
- 5. Discuss the injuries in neck cartilages in relation to asphyxia.
- 6. Discuss "postmortem room hazards."
- 7. Discuss "medical negligence".
- 8. Discuss the significance of "inhalation of vomitus" as a cause of death.
- 9. Discuss the autopsy findings in cases of death due to suicidal cyanide poisoning.
- 10. Outline the law of abortion in Sri Lanka; and indicate significant changes that have been effected in other countries.

MD (FORENSIC MEDICINE) EXAMINATION JULY, 1992

Date: 6th July, 1992 Time: 2.00 p.m.-5.00 p.m.

PAPER I

- 1. Discuss the role of the Forensic Pathologist in the Investigation of "Mass Disasters".
- 2. A 15-year-old female is produced before you, with a history of abortion.
 - 2.1 Discuss how you will establish the probability of criminal abortion.
 - 2.2 Discuss the implications of "consent" and "confidentiality" in this case.
- 3. You are asked to perform an autopsy on the body of an alleged Victim (identified) of hit-and-run road traffic accident.
 - Discuss how you will proceed with the examination in order to establish the possible identify of the vehicle, the likely manner of accident (including possibility of contributory factors on the part of the victim), and the cause of death.
- 4. Describe the morbid anatomical and histopathological findings in a case of death due to parquat poisoning.

MD (FORENSIC MEDICINE) EXAMINATION JULY, 1992

Date: 7th July, 1992 Time: 9.00 a.m. - 12.00 noon

PAPER II

- 1. Describe the use of radiology in "identification"
- 2. Describe the possible postmortem findings in "deaths in custody".
- 3. Write a critique of the law of abortion in Sri Lanka.
- 4. Describe the autopsy findings in a case of death due to anaphylaxis.
- 5. List the conditions that lead to pulmonary embolism; and, describe the pathology (macroscopic and microscopic) of the embolism affected vessels.
- 6. Discuss the investigation of a bite mark.
- 7. Critically evaluate the significance of contusions in medico-legal practice.
- 8. Evaluate the significance of the umbilical cord in the medico-legal investigation of infanticide.
- 9. Critique the "inquest system" in Sri Lanka.
- 10. What is heroin, and from what substances is it derived? Describe the withdrawal effects of heroin.

MD (FORENSIC MEDICINE) EXAMINATION <u>JULY, 1994</u>

Date: 5th July, 1994 Time: 2.00 p.m. - 5.00 p.m.

PAPER I

- Write an essay on Child Sexual Abuse.
 Discuss the particular difficulties in the evaluation of alleged anal abuse.
- 2. A helicopter carrying important officials crashes on to a group of suburban houses. There is an extensive post crash fire. Describe the role of the pathologist initially at the scene and during the subsequent identification and autopsy processes.
- 3. A group of human rights activists alleges that prisoners are being tortured to obtain confessions. Outline the allegations, which such prisoners are likely to make and describe the injuries and other physical signs you may find to support them.
- 4. State the recommendations you would make to establish an efficient medico-legal service for Sri Lanka.

MD (FORENSIC MEDICINE) EXAMINATION JULY 1994

Date: 6th July, 1994 Time: 9.00 a.m. - 12.00 noon

PAPER II

- 1. Outline the laboratory methods that are available for the diagnosis of drowning.
- 2. Discuss the evidence obtainable from a shot gun entry wound, with regard to nature of weapon, range and direction of fire.
- 3. Outline the inferences about the weapon that may be drawn from the examination of a stab wound, at autopsy.
- 4. Describe how the examination of human hair may assist the forensic pathologist/toxicologist.
- 5. Describe the mechanisms of death in cases of abortion by mechanical interference.
- 6. A known heroin abuser is found dead in his room. Discuss what causes of death you would consider.
- 7. Outline the possible causes of sudden death in a 45-year-old male chronic ethanol abuser.
- 8. Explain the term "res ipsa loquitur", giving appropriate examples.
- 9. Describe the complete examination of a bite mark, for forensic purposes.
- 10. State, and critique the Mc Naghten Rules.

MD (FORENSIC MEDICINE) EXAMINATION JULY,1995

Date: 3rd July, 1995 Time: 2.00 p.m. - 5.00 p.m.

PAPER I

- 1. Discuss how you would investigate the death of a person found in a burnt house.
- 2. Explain Locard's principle (theory of exchange) and discuss how it is applicable to a scene examination.
- 3. What do you understand by the term "non-accidental injury in children"? Describe:
 - (a) How you would diagnose this condition and
 - (b) State the differential diagnosis.
- 4. A mass grave is said to contain numerous comingled human remains. How would you organise and carryout the investigation of this grave?

MD (FORENSIC MEDICINE) EXAMINATION JULY, 1995

Date: 4th July, 1995 Time: 9.00 a.m. -12.00noon

PAPER II

- 1. Discuss the features of entry and exit wounds caused by rifled handguns.
- 2. Describe the role of an expert witness for the defence in a case of homicide.
- 3. Discuss the forensic significance of epilepsy.
- 4. How would you differentiate homicidal from suicidal stabbing at autopsy?
- 5. Describe the autopsy findings in paraquat poisoning
- 6. Discuss the term "asphyxia" as used in a forensic context, giving examples of mechanical and non-mechanical types.
- 7. Discuss the role of postmortem biochemistry in assessing the time of death.
- 8. Discuss the causes of subarachnoid hemorrhage.
- 9. Discuss the role of DNA analysis in medico legal work.
- 10. Discuss the ethical issues involved in the examination of victims of rape.

MD (FORENSIC MEDICINE) EXAMINATION JULY, 1996

Date: 1st July, 1996 Time 2.00 p.m. - 5..00 p.m.

PAPER I

- 1. Discuss the observations of value that you may make at a scene of crime; and, the advice you may give, by way of assistance, to the other members of the team of criminal investigation.
- 2. Outline the injuries and injury patterns that may be observed on the bodies of a group of victims, of a bomb explosion and discuss the conclusions you may draw therefrom.
- 3. Describe the changes that occur in the early postmortem interval prior to putrefaction, and discuss their value.
- 4. Discuss how you will investigate a case of alleged torture, and draw relevant conclusions.

MD (FORENSIC MEDICINE) EXAMINATION <u>JULY, 1996</u>

Date: 2nd July, 1996 Time: 9.00 a.m. -12.00 noon

PAPER II

- 1. Compare and contrast homicidal and suicidal sharp force trauma to the neck.
- 2. Discuss the value of floatation of lungs, in establishing live birth.
- 3. Describe the likely radiological findings in a case of "battered child".
- 4. Discuss the important ethical considerations in a case of HIV infection.
- 5. Discuss the mechanism of production of traumatic sub-arachnoid hemorrhage.
- 6. Describe the autopsy findings that may be observed in a case of intravenous heroin poisoning.
- 7. Describe the autopsy findings in a case of death due to illegal abortion by instrumentation.
- 8. Describe the entrance and exit wounds on the bare body, caused by firing a T56 rifle.
- 9. Describe the injuries that may be observed in the structures of the neck, in a case of manual strangulation.
- 10. Indicate giving reasons, the conducive changes you may suggest to the current law of abortion in Sri Lanka.

MD (FORENSIC NEDICINE) EXAMINATION JULY, 1997

Date: 7th July, 1997 Time: 2.00 p.m. - 5.00 p.m.

PAPER I

Answer all four questions. Commence each question on a new page.

- 1. Outline the main features inherent in the
 - (a) medical examiner's system in the United States of America (15 marks)
 - (b) coroner's system of England

(15 marks)

- 1.1. State analytically the advantages and disadvantages of the system in Sri Lanka in comparison with the two systems stated above (70 marks)
- 2. You are called upon to perform a post mortem examination in the case of a young woman who is alleged to have died as a result of criminal abortion in the second trimester.
 - Discuss those parts in your evidence that will be useful to arrive at a decision in a court of law (100 marks)
- 3. Describe how a clinical diagnosis of drunkenness is made; and critically evaluate the reliability of the conclusions arrived there by (100 marks)
- 4. You are required to examine a scene of a crime and perform the autopsy in a case of suspected rape and murder. Indicate in which aspects and in what manner you will enlist the support of the Forensic Scientists in your investigation.

(100 marks)

MD (FORENSIC MEDICINE) EXAMINATION JULY 1997

Date: 8th July, 1997 Time: - 9.00 a.m. - 12.00 noon

PAPER II

- 1. Describe the features that suggest self-infliction in a case of incised wounds to the neck.
- 2. Describe how brain death is diagnosed.
- 3. Describe the features of child sexual abuse.
- 4. Describe the procedures to examine the vertebral arteries at autopsy.
- 5. Discuss the value of bite marks in forensic practice.
- 6. State the present law on rape in Sri Lanka.
- 7. Describe the features of withdrawal syndrome in a heroin addict.
- 8. List the occupational hazards encountered by persons working in a mortuary.
- 9. Discuss the difficulties encountered in assessing the range of fire in deaths from firearms.
- 10. Discuss the importance of injuries found in the cartilages and bones of the neck in asphyxial deaths.

MD (FORENSIC MEDICINE) EXAMINATION SEPTEMBER, 1998

Date: 14th September, 1998 Time :- 2.00 p.m. - 5.00 p.m.

PAPER I

- 1. Discuss civil medical negligence illustrating the concepts with reference to cases (100 marks)
- 2. A man with ischaemic heart disease and recently diagnosed metastatic carcinoma of the rectum is assaulted. He sustains three fractured ribs, facial bruising and apart from spending 3 days in bed on oral analgesics, he is apparently recovering quite well. On the 8th day after the assault he suddenly collapses and dies in the toilet.
 - Discuss the likely causes of death and the relationship if any between these and the assault. (100 marks)
- 3. Discuss the medico legal investigation of a body found hanging in an abandoned house. (100 marks)
- 4. Discuss the issues confronting the Pathologist in determining the number of times a deceased has been shot, from what range and the course taken by the projectile (s). (100 marks)

MD (FORENSIC MEDICINE) EXAMINATION SEPTEMBER, 1998

Date: 15th September, 1998 Time: 9.00 a.m. - 12.00 noon

PAPER 11

- 1. Outline the value of entomology in Forensic Pathology.
- 2. Discuss the differential diagnosis of acute alcoholic intoxication.
- 3. Discuss the value of examination of the eye at autopsy.
- 4. Describe the value and uses of X-rays in Forensic practice. Describe the circumstances and the causes of death in an intravenous drug abuser.
- 6. Discuss the issues related to obtaining consent in forensic medical practice.
- 7. Discuss what a negative (obscure) autopsy is. What further action should be taken in such a case.
- 8. Discuss the causes of sudden death in epilepsy.
- 9. Describe the clinical features of Gloriosa suparba poisoning.
- 10. Describe the medical examination of a person suspected of having items concealed in the body. Enumerate the risks involved to this person.

MD (FORENSIC MEDICINE) EXAMINATION SEPTEMBER, 1999

Date: 6th September, 1999 Time: 2.00 p.m. - 5.00 p.m.

PAPER I

- 1. Discuss the medico-legal investigation of deaths occurring during and soon after surgery and anesthesia.
- 2. Discuss how you would assess a victim of torture and prepare a report to court.
- 3. Give examples of two different medico-legal systems of investigation of deaths and critically discuss their advantages and disadvantages in relation to one another.
- 4. Discuss the organizational structure and role of a Forensic Science Laboratory in crime investigation.

MD (FORENSIC MEDICINE) EXAMINATION SEPTEMBER, 1999

Date: 7th September, 1999 Time: 9.00 a.m. - 12.00 noon

PAPER II

- 1. What do you understand by the term 'postural' (positional) asphyxia and what is its medico-legal significance.
- 2. Discuss briefly the use of computers in Forensic practice.
- 3. Discuss briefly the problems involved in postmortem blood sampling for toxicology.
- 4. Indicate the difficulties encountered by a Forensic Pathologist when investigating a death following bullet injuries to the head.
- 5. What do you understand by the term 'infanticide' as applicable in Sri Lankan Law?
- 6. Discuss the importance of the femur in Forensic practice.
- 7. Discuss the value of a 'Case Conference' in investigation of cases of child abuse.
- 8. Critically discuss the various methods available for aging of contusions (bruises).
- 9. Discuss how you would organize a Forensic team for the investigation of a mass grave.
- 10. Discuss the value of the examination of clothing in Forensic practice.

MD (FORENSIC MEDICINE) EXAMINATION MARCH, 2000

Date: - 20th March, 2000 Time: - 2.00 p.m. - 5.00 p.m.

PAPER I

Answer all four questions. Commence each question on a new page.

1. A high profile community figure is shot in the head by an assassin using a handgun. Witnesses say the victim and assassin were about 2 meters apart at the time of the discharge of the weapon. The victim survives a short time in hospital undergoing surgery.

Discuss your approach to the forensic investigation, highlighting potential difficulties.

- 2. Discuss the value and limitations of odontology in a forensic practice.
- 3. Discuss non-fatal, non-accidental injury in childhood.
- 4. Discuss the role of the medical witness in a Court of Law.

MD (FORENSIC MEDICINE) EXAMINATION MARCH, 2000

Date: 21st March, 2000 Time: 9.30 a.m. - 12.30 p.m.

PAPER II

- 1. Describe the lung changes in "paraquat poisoning".
- 2. Describe the typical findings at neck dissection in a case of suicidal hanging death.
- 3. Discuss the estimation of the age and the determination of the sex from the pelvis.
- 4. Describe the postmortem findings in sudden infant death syndrome.
- 5. Discuss the role of alcoholin the causation of road traffic accidents.
- 6. Outline the hazards of professional and recreational diving.
- 7. Describe the safety precautions in a high-risk autopsy.
- 8. Highlight the procedures for the diagnosis of brain death.
- 9. Critically assess the current law of abortion in Sri Lanka.
- 10. Discuss the value of laboratory investigations in a case of drowning.

MD FORENSIC MEDICINE EXAMINATION NOVEMBER, 2000

Date: 1st November, 2000 Time: 1.30 p.m. - 4.30 p.m.

PAPER I

- 1. Discuss the role of the pathologist in investigation of deaths due to a bomb explosion.
- 2. You have been invited to deliver a lecture to police officers who are undergoing special training to handle cases of child abuse. Discuss the contents of your lecture.
- 3. Discuss the uses and limitations of D.N.A. testing in forensic practice.
- 4. Outline the Laws on Criminal Abortion in Sri Lanka and compare it with the laws in other countries.

MD (FORENSIC MEDICINE) EXAMINATION NOVEMBER, 2000

Date: 2nd November, 2000 Time: 9.30 a.m. - 12.30 p.m.

PAPER II

Answer all questions.

- 1. Discuss briefly traumatic Sub-arachnoid hemorrhage.
- 2. Discuss the medico-legal importance of examination of the stomach and its contents.
- 3. Discuss the use of postmortem chemistry in estimation of the time since death.
- 4. Discuss the medico-legal aspects of stab injuries to the heart.
- 5. Discuss briefly the value of Radiology in Forensic practice.
- 6. Discuss briefly the ethical and legal issues in Cloning.
- 7. Discuss briefly the medical evidence in a case of alleged rape.
- 8. Outline the postmortem findings in a case of intravenous drug abuser.
- 9. Outline how you would investigate the death of a person found with an apparent gunshot injury to the head.
- 10. Outline the law on criminal negligence applicable to medical practice in Sri Lanka.

MD (FORENSIC MEDICINE) EXAMINATION JULY, 2001

Date: 16th July, 2001 Time: 1.30 p.m. to 4.30 p.m.

PAPER I

- 1. What are the difficulties encountered by the forensic physician in the examination and interpretation of findings in victims and rape and female victims of grave sexual abuse.
- 2. Describe the injuries caused by bullets of high velocity and explain how they are caused.
- 3. Discuss the value of examination and interpretation of blood and blood stains in criminal investigations.
- 4. Discuss the legal and ethical issues involved in the use and retention of tissues from cadavers for research, transplantation and forensic investigation.

MD (FORENSIC MEDICINE) EXAMINATION <u>JULY, 2001</u>

Date: 17th July, 2001 Time: 9.30 a.m. to 12.30 p.m.

PAPER II

Answer all questions.

- 1. Describe briefly the value of microscopy in forensic pathology.
- 2. Describe the injuries caused by the use of plastic baton rounds and rubber bullets.
- 3. Discuss how the forensic pathologist can help the Court to decide "Mens Rea" in a case of homicide.
- 4. Discuss how you would examine the cervical spine in a case of traumatic subarachnoid haemorrhage.
- 5. Discuss diffuse axonal injury in forensic practice.
- 6. Describe the clinical manifestations of acute cocaine poisoning.
- 7. Discuss the significance of diatom studies in the investigation of cases of suspected drowning.
- 8. How would the examination of the skull assist in the estimation of age after 30 years.
- 9. What do you understand by the term "postural" (positional) asphyxia and what is its medico-legal significance.
- 10. Discuss the limitations of the estimation of the time of death from the rate of cooling of the body.

MD (FORENSIC MEDICINE) EXAMINATION NOVEMBER, 2001

Date :- 19th November, 2001 Time :- 1.30 p.m. - 4.30 p.m.

PAPER I

Answer all four questions. Commence each answer on a new page.

- A 35 year old well known criminal suspect was arrested by the police. He died before reaching the Police Station.
 Discuss your approach to the forensic investigation including description of likely possible findings.
- 2. A large number of casualties have been admitted to the Accident Service Department of National Hospital of Sri Lanka following mob violence after a political rally which was later controlled by the Police.

Discuss the mechanisms of causations and interpretation of injuries that you may find in these patients.

- 3. Discuss the uses, limitations and interpretation of results of entomological studies in forensic investigations.
- 4. Discuss briefly the ethical and legal issues involved in research, experimentation and treatment pertaining to human reproduction.

MD (FORENSIC MEDICINE) EXAMINATION NOVEMBER, 2001

Date: - 20th November, 2001

Time :- 9.30 a.m. - 12.30 p.m.

PAPER II

Answer all questions.

- 1. Discuss the difficulties encountered in interpretation of injuries in the neck in a body found hanging.
- 2. Describe the circumstances, mode of action and clinical features of methyl alcohol poisoning.
- Incomplete skeletal remains of an adult human (without skull and limbs) were found in a jungle.
 State briefly how you would establish the identity.
- 4. Outline and explain the laws pertaining to killing of a child in the third trimester of pregnancy and during delivery.
- 5. Discuss briefly the causation and medico legal implications of mechanical injuries to the heart.
- 6. List the types of Amphetamines that may be abused and describe how their use may result in death.
- 7. A Pedestrian is killed by a motor vehicle. Describe how you would assist the police investigators in tracing the vehicle.
- 8. Critically evaluate the current laws on admission and discharge of persons from mental hospitals.
- 9. Discuss the value of radiology in child physical abuse.
- 10. Describe the indications, technique and interpretation of results in the examination of the conducting system of the heart.

MD (FORENSIC MEDICINE) EXAMINATION MAY, 2002

Date :- 28th May, 2002 Time :- 1.00 p.m. - 4.00 p.m.

PAPER I

Answer all four questions.

Commence each answer on a new page.

- 1. Critically evaluate the methods and techniques used in the investigation of skeletal remains.
- 2. Discuss the role of the expert medical witness for the prosecution and for the defence in a adversarial system.
- 3. A 13 year old girl with a history of sexual abuse is presented before you for examination.

 Discuss the <u>difficulties</u> and <u>limitations</u> encountered by the Judicial Medical officer in the <u>examination</u>, reporting and <u>giving evidence</u> in this case.
- 4. An apparently healthy woman dies during unassisted labour in a maternity ward.

What are the likely causes of death and discuss how you would establish the cause of death at an autopsy.

MD (FORENSIC MEDICINE) EXAMINATION MAY, 2002

Date: 29th May, 2002 Time: 9.30 a.m. - 12.30 p.m.

PAPER II

Answer all questions.

- 1. Describe the findings on gross and histological examination of the brain in a case of bacterial leptomeningitis.
- 2. Describe the methods of torture used by police and security forces on suspects in their custody.
- 3. Describe the macroscopic and microscopic appearances in a case of acute respiratory distress syndrome (ARDS).
- 4. Discuss the circumstances and clinical features in acute and chronic Lead poisoning.
- 5. a) What is meant by high risk autopsy?
 - b) Discuss the precautions you would take when performing a hi,gh risk autopsy.
- 6. Describe the injury pattern of a victim who has fallen from a height.
- 7. Describe the Medico Legal Issues involved in a case of acid throwing in the living.
- 8.
- a) What is "Informed Consent"?
- b) Discuss its application in forensic practice.
- 9. Describe the differences between murder and culpable homicide not amounting to murder. Illustrate your answer with examples.
- 10. Critically evaluate the clinical methods available for examination of a driver for drunkenness.

MD (FORENSIC MEDICINE) EXAMINATION DECEMBER, 2002

Date: 2nd December, 2002 Time: 1.00 p.m. - 4.00 p.m.

PAPER 1

Answer all four questions.

- 1. Discuss the role of the Forensic Pathologist in the management of a transportation disaster involving multiple deaths.
- The police has raided a medical center and taken some women into custody who were alleged to have been in the process of achieving illegal abortions. They are produced before the Judicial Medical Officer.
 Discuss the diagnostic approach and the difficulties encountered both at the time of examination and subsequent evidence in Court.
- 3. Discuss the legal and ethical aspects of "the human body as property".
- 4. Discuss the evolving role of photography in a medico legal investigation.

MD (FORENSIC MEDICINE) EXAMINATION DECEMBER, 2002

Date: 3rd December, 2002 Time: 1.00 p.m. to 4.00 p.m.

PAPER II

Answer all questions.

- I. Briefly discuss the concept of Brain death.
- 2 Describe the appearances and mechanisms of causation of injuries associated with " hand cuff's ".
- 3. What is meant by 'Sexual Asphyxia' and how does it occur?
- 4. How would you establish the age of a myocardial infarction?
- 5. Discuss the limitations in interpretation of drug levels in postmortem specimens.
- 6. List the eye changes associated with physical child abuse.
 What are the difficulties and dangers in interpretation of these findings?
- Under what circumstances, a medical practitioner's name could be erased from the medical register?
 Briefly outline the disciplinary procedures adopted by the medical council for such purposes.
- 8. What problems and limitations are encountered by a Forensic Pathologist in establishing the age in an adult skull?
- 9. Describe the clinical features of "decompression sickness".
- 10. Discuss the resolution of 'disputed paternity'.

MD (FORENSIC MEDICINE) EXAMINATION NOVEMBER, 2003

Date: 17th November, 2003 Time: 1.00 p.m. - 4.00 p.m.

PAPER I

- 1. Discuss the basis on which medical issues are decided in a Court of Law and the role of the medical expert in a compensation case in relation to an accident. (100 marks)
- 2. Discuss the concept, the forces involved and the diagnosis of "Shaken Baby Syndrome". (100 marks)
- 3. Discuss the value of Radiology, Odontology, Immunology/Serology in the investigation of fragmented remains. (100 marks)
- 4. Discuss the ethical and legal issues involved in the medical management of minors, the unconscious and the terminally ill. (100 marks)

MD (FORENSIC MEDICINE) EXAMINATION NOVEMBER, 2003

18th November, 2003 Time: 1.00 p.m. - 4.00 p.m.

PAPER II

Answer all ten questions. Commence each answer on a separate page.

- 1. Define the condition "Sudden Infant Death Syndrome" and discuss briefly what other conditions have to be excluded.
- 2. Discuss the evidential value of stomach contents and gastric emptying in the estimation of time of death.
- 3. Describe how you would establish live birth at autopsy.
- 4. Describe five types of torture and the main features of each type.
- 5. Discuss the potential value of a Case Conference before commencing a criminal trial.
- 6. Discuss the difficulties encountered in the interpretation of "injuries" in the hymen in cases of alleged rape.
- 7. A passenger coming in an international flight is suspected to bring narcotics hidden within his body. How would you investigate and manage this case.
- 8. Discuss critically the application of McNaghten's rules in the 21st century.
- 9. Discuss the value of diatoms in the medico legal investigation of bodies recovered from water.
- 10. Describe the profile of a "serial killer".

MD (FORENSIC MEDICINE) EXAMINATION NOVEMBER, 2004

Date: 15th November, 2004 Time: 1.00 p.m.- 4.00 p.m.

PAPER 1

Answer all four questions. Commence each answer on a new page.

1. A known drug addict is found dead in a public toilet with the front of his shirt soiled with a large blood stain.

Discuss the medico legal investigation you would carry out as a Forensic Pathologist to arrive at the cause of death and the circumstances of death.

(100 marks)

,

2. The Court requests you to examine a man with multiple scars who claims he was tortured by the police.

Discuss a) The legal and ethical issues that arise in this situation.

(50 marks)

b) How you would examine this man and interpret his scars.

(50 marks)

3. A woman complains of physical and sexual assault by an unknown assailant.

Discuss a) the samples you would take. (25 marks)

b) how you would take samples. (25 marks)

c) the interpretation of the laboratory results. (50 marks)

4. A 30 year old mother dies following delivery in a hospital from post-partum haemorrhage.

- a) Describe how you would perform the autopsy to determine the cause for the post-partum haemorrhage. (50 marks)
- b) The Medical Officer who managed this patient is charged with criminal negligence. Discuss the medico legal issues involved. (50 marks)

MD (FORENSIC MEDICINE) EXAMINATION NOVEMBER, 2004

Date: 16th November, 2004 Time: 1.00 p.m. - 4. 00 p.m.

PAPER II

Answer all ten questions. Commence each answer on a separate page. Please write legibly.

- 1. Describe the various atypical gun shot wounds and explain how they are caused.
- 2. In what circumstances would you suspect air embolism to cause death and how would you demonstrate this at autopsy.
- 3. Describe the lesions associated with resuscitation which can be confused with antemortem lesions leading to problems in evaluating the death.
- 4. Discuss the various non-traumatic conditions where acute alcoholic intoxication leads to death.
- 5. Discuss "volitional activity" and "period of survival" following a fatal head Injury.
- 6. A 24 year old man dies 10 days after ingesting paraquat. Describe briefly the autopsy findings.
- 7. Describe the nature of injuries and their mechanism of causation in road accidents involving motor cyclists.
- 8. Outline the medico-legal and ethical issues associated with providing reports for the defence in criminal cases.
- A person apparently under 18 years is presented to you for the assessment of the age.Discuss the criteria used to make this assessment.
- 10. A body found hanging is brought to the mortuary by the police. Discuss how you would exclude homicidal ligature strangulation.

MD (FORENSIC MEDICINE) EXAMINATION NOVEMBER. 2005

Date: 28th November, 2005 Time: 1.00 p.m. - 4.00p.m.

PAPER I

Answer all four questions. Commence each answer on a new page.

1. A secret mass grave containing about 100 dead bodies of prisoners of war is said to be located in a jungle area.

Describe how you would locate the grave, retrieve the bodies and establish the identity and the cause of death of the victims.

- 2. Discuss the difficulties encountered in the interpretation of clinical examination findings in an adult female subjected to sexual abuse.
- 3. Describe the methods used, and discuss the difficulties encountered in the collection, storage and despatch of body samples to the toxicologist in a suspected case of poisoning.
- 4. Discuss the past, present and future trends in "medical confidentiality".

MD (FORENSIC MEDICINE) EXAMINATION NOVEMBER, 2005

Date: 29th November 2005 Time: 1.00 pm. - 4.00 p.m.

PAPER II

Answer all t en questions. Commence each answer on a separate page. Please write legibly.

- 1. Write brief notes on Forensic aspects of bio-terrorism.
- 2. Describe the difficulties encountered in the estimation of range of fire in shotgun injuries.
- 3. Discuss the biological hazards encountered by persons working in the autopsy room, emphasizing methods of prevention.
- 4. Describe the macroscopic and microscopic appearances in the lungs in a victim of a bomb explosion.
- 5. Discuss the genesis and significance of petechial haemorrhages in a body found hanging.
- 6. Describe each of the following
 - 6.1 Aschoff bodies
 - 6.2 Curling's ulcers
 - 6.3 Waterhouse Friderichsen syndrome
- 7. Discuss how you would establish live birth at autopsy, in an infant killed soon after birth.
- 8. Discuss the clinical and autopsy diagnosis of a fatal case of diffuse axonal injury.
- 9. Discuss the role of radiology in physical child abuse.
- 10. List the different types of non fatal self infected injuries and discuss how they are recognized.

MD (FORENSIC MEDICINE) EXAMINATION NOVEMBER. 2006

Date: 27th November, 2006 Time: 1.00 p.m. - 4.00 p.m.

PAPER I

Answer all four questions. Commence each answer on a new page.

- 1.
- 1.1 Critically evaluate the methods available in Sri Lanka for the examination of drivers alleged to have been driving after consuming alcohol.

 (50 marks)
- 1.2 Discuss the modifications you would propose to improve the above methods, to be on par with those of more developed countries.

 (50 marks)
- 2. A fresh, naked dead body of a businessman who had been kidnapped a few days back, is found in a lonely place with his hands tied at the wrists behind his back. The dead body has several circular bleeding injuries on the head and face areas.
 - 2.1 Discuss the medico-legal investigations that you would carry out as a Forensic Pathologist in order to;
 - 2.1.1 I dentify the weapon/agent responsible for the causation of injuries in the head and face. (40 marks)
 - 2.1.2 Determine the cause of death. (20 marks)
 - 2.2 Discuss the interpretation of other injuries you would expect in this case under these circumstances. (40 marks)
- 3. Discuss the value of odontology in Forensic Practice. (100 marks)
- 4.
- 4.1 Discuss the coroner system (as practiced in Sri Lanka) and the Medical Examiner system in the investigation of sudden unexpected deaths.

 (60 marks)
- 4.2 State giving reasons, as to which of these systems is best suited for Sri Lanka. (40 marks)

MD (FORENSIC MEDICINE) EXAMINATION NOVEMBER, 2006

Date: 28th November 2006 Time: 1.00 p.m. - 4.00 p.m.

PAPER II

Answer all t en questions. Commence each answer on a separate page. Please write legibly.

- 1. Discuss the medico-legal interpretation of artefacts that may be seen in a body recovered from a burnt down house.
- 2. Discuss the value of vitreous humour analysis in a dead body (excluding alcoholism and drug overdose).
- 3. A 19 year old otherwise healthy male died suddenly.

 List the cardiac conditions that could have caused the death and describe the macroscopic and microscopic features in one of them.
- 4. Describe the dissecting technique/s to demonstrate vertebral artery rupture at autopsy.
- 5. Discuss the significance of examination of the mouth in sudden unnatural deaths.
- 6. Describe briefly the various mechanisms of death associated with deep sea diving.
- 7. Discuss the circumstances, clinical features and modes of causation of death due to Amphetamines.
- 8. Discuss the circumstances and the mechanisms of causation of death in postural asphyxia.
- 9. Discuss the legal and ethical issues that may arise in the retention of organs after autopsy.
- 10. Describe the mechanisms of causation of characteristic injury patterns to riders of motor cycles admitted to a casualty unit.

MD (FORENSIC MEDICINE) EXAMINATION DECEMBER, 2007

Date: 13th December, 2007 Time: 1.00 p.m. - 4.00 p.m.

PAPER I

Answer all questions. Commence each answer on a separate page. Please write legibly.

- 1. Three young men and a girl were traveling in a car at mid night after returning from a party. One of the men was driving and the girl was seated behind the driver. The car skidded and knocked against a lamp post and caught fire. All . three young men escaped with minor injuries while the girl's charred body was found in the bunt car.
 - 1.1 List and briefly discuss the medico-legal issues involved. (25 marks)
 - 1.2 List and briefly describe special dissections you could perform.

(25 marks)

- 1.3 What ancillary tests would be helpful in this case and what conclusions could be drawn from these tests? (50 marks)
- 2. Discuss the use of conventional radiology and modem imaging techniques in forensic practice in the following settings.
 - 2.1 Clinical forensic medicine.

(50 marks)

2.2 Postmortem examinations.

(50 marks)

3.

- 3.1 Define and explain "polymerase chain reaction" and describe why it is important in forensic work.. (50 marks)
- 3.2 Discuss the use of DNA in forensic casework in the following situations.
 - a) Identification of remains recovered from a mass grave

(25 marks)

b) Sexual offences.

(25 marks)

4. Discuss the legal and ethical issues associated with the medical management of a critically-injured young adult man from a road traffic accident who is maintained on a ventilator. (100 marks)

MD (FORENSIC MEDICINE) EXAMINATION DECEMBER, 2007

Date: 14th December, 2007 Time: 1.00 p.m. - 4.00 p.m.

PAPER II

Answer all ten questions. Commence each answer on a separate page. Please write legibly.

- 1. Describe the present concept and controversy of shaken baby syndrome.
- 2. Discuss the medico-legal significance of fat and bone marrow embolism.
- 3. How do you determine live birth at autopsy?
- 4. Describe the macroscopic appearances of the different causes of fatal haemoptysis at autopsy.
- 5. Briefly describe the circumstances, clinical features, routes of administration and modes of death with cocaine.
- 6. Describe the blood stains that are often present at the scene of crime after blunt impact head trauma with a heavy instrument.
- 7. Briefly describe dermatologic diseases that may mimic child abuse.
- 8. Describe the various scars that may be seen after physical torture.
- 9. Discuss the principles and goals of cross examination of the medical witness.
- 10. What are the ethical and legal issues associated with live-donor kidney donation for transplant?

MD (FORENSIC MEDICINE) EXAMINATION NOVEMBER 2008

 $Date: 17^{th}\ November\ 2008 \qquad \qquad Time: 1.00\ p.m.-4.00\ p.m.$

PAPER 1

Answer <u>all</u> questions. Commence each answer on a separate page Please write legibly.

- 1. As the on-call forensic pathologist you are requested to attend a scene of death. The location is the residence of a high profile, national politician. When you are called you are told that the preliminary scene examination by the investigating officers is suggestive of a drug overdose, with 3 containers of recently prescribed medications and a half-full tumbler of water on the table alongside the deceased's bed. You are also told that there are some blood stains mixed with mucus on the pillow and around the mouth of the deseased.
 - 1.1. Describe how you would proceed starting from when you arrive until both you and the body leave the scene. (60 marks)
 - 1.2. Discuss how your findings at the scene would assist the police investigation, indicating what advice you would give the police.

 (40 marks)
- 2. Discuss the ways in which expert medical witnesses assist the Courts, emphasizing their roles and responsibilities to the Court. (100 marks)
- A male prisoner who was in police custody for 7 days was found dead on admission to hospital.
 Discuss the possible causes of death (excluding natural causes) and associated macroscopic autopsy findings in this case. (100 marks)
- 4. Explain the term 'physical abuse' and discuss the role of the Judicial Medical Officer in the diagnosis, management, prosecution and prevention of different Types of physical abuse in the living. (100 marks)

MD (FORENSIC MEDICINE) EXAMINATION NOVEMBER 2008

Date: 18th November 2008 Time: 1.00 p.m. – 4.00 p.m.

PAPER 11

Answer <u>all ten</u> questions. Commence each answer on a separate page Please write legibly.

1. Discuss artifacts resulting from post-mortem changes. (100 marks) 2. Write notes on-2.1. Lichtenberg figures (30 marks) Ziehl Neelsen's stain 2.2. (30 marks) 2.3. Henssge's nomogram (40 marks) 3. Write notes on the possible gross autopsy findings in chronic alcoholism. (100 marks) 4. Briefly describe the five (05) phases of disaster victim identification (DVI). (100 marks) 5. Discuss the causes of sudden death when autopsy reveals no macroscopic and microscopic abnormalities and negative toxicological results. (100 marks) 6. Describe how the pattern and distribution of burns may help you to reconstruct the circumstances. (100 marks) 7. Briefly discuss the ethical and legal issues involved in the management of (100 marks) terminally ill patients. 8. Describe the collection of trace evidence at the mortuary from victims of explosive injuries and (ii) Firearm injuries. (100 marks) 9. List the types of microbiological hazards that may be encountered in a forensic mortuary and discuss the precautions you would take to minimize risks to staff. (100 marks) Write notes on the medical effects of "recreational drugs". 10. (100 marks)

MD (FORENSIC MEDICINE) EXAMINATION <u>JULY 2009</u>

Date: 7th July 2009 Time: 1.00 p.m. – 4.00 p.m.

PAPER 1

Answer <u>all</u> questions. Commence each answer on a separate page Please write legibly.

- 1. A middle aged man with a haematological malignancy was admitted to a hospital with anaemia and dyspnea, and was given a blood transfusion. During the transfusion, he developed severe rigor and collapsed. The transfusion was stopped and resuscitation attempted, but he died after about 45 minutes.
 - 1.1. Identify the medico-legal issues involved. (25 marks)
 - 1.2. Discuss the medico-legal investigation in order to arrive at conclusions in a case of this nature. (75 marks)
- 2. You were sent in a mission to another country to assist the investigation of alleged torture in prisoners.
 - 2.1. Discuss the main issues you should consider when assessing the alleged victims of torture, according to international standards.

(60 marks)

- 2.2. Discuss the problems you might encounter in carrying out your Mission. (40 marks)
- 3. Critically analyse the application of laboratory investigations in an alleged incident of rape. (100 marks)
- 4. Discuss the ethical and legal issues related to assisted reproductive technologies. (100 marks)

MD (FORENSIC MEDICINE) EXAMINATION <u>JULY 2009</u>

Date : 8^{th} July 2009 Time : 1.00 p.m. -4.00 p.m.

PAPER 1I

Answer <u>all ten</u> questions. Commence each answer on a separate page Please write legibly.

- 1. Describe the autopsy diagnosis (by macroscopic and microscopic features) of embolism following criminal abortion.
- 2. Describe the artifacts which could be found in a body recovered from water.
- 3. Discuss the application of hypostasis (livor mortis) in medico-legal investigations and its limitations.
- 4. Describe the microscopic diagnosis of adult respiratory distress syndrome.
- 5. Discuss the reliability of ethanol level in cadaveric body fluids as an indicator for the ethanol level during the ante mortem period.
- 6. Write giving reasons the possible biological samples that could be used for genetic identification of a cadaver in different degradation stages.
- 7. How would you determine the categories of hurt in a person who had sustained a mobile tooth following an assault.
- 8. Discuss the issue of consent pertaining to examination and treatment of minors.
- 9. Discuss the criteria on which you would assess incapacity of a person following accidental injury for civil compensation.
- 10. Briefly describe the circumstances and medico legal implications of post traumatic stress disorder (PTSD).

MD (FORENSIC MEDICINE) EXAMINATION NOVEMBER 2009

Date: 23rd November 2009 Time: 1.00 p.m. – 4.00 p.m.

PAPER 1

Answer all questions. Commence each answer on a separate page. Please write legibly.

1. A 45 year old male who is a known alcoholic, was found at the bottom of a staircase at his residence. He was living alone and had not been seen by anyone for the last two days.

The police are concerned because there are blood stains in more than one room and around the body.

Outline the medico-legal issues in the investigation of this case, and discuss how you would approach this case from your arrival at the scene of death to the completion of the autopsy.

(100 marks)

2. Discuss the problems encountered by the Judicial Medical Officers pertaining to examination, reporting and giving evidence in court in relation to persons who have been detained or taken into custody.

(100 marks)

- 3. Discuss the legal and ethical issues pertaining to euthanasia and assisted suicide. (100 marks)
- 4. Discuss the problems in interpretation of laboratory toxicological findings in the post mortem of heroin abusers. (100 marks)

MD (FORENSIC MEDICINE) EXAMINATION NOVEMBER 2009

Date: 24th November 2009 Time: 1.00 p.m. – 4.00 p.m.

PAPER II

Answer <u>all ten</u> questions. Commence each answer on a separate page. Please write legibly.

- 1. Briefly describe the clinical and pathological aspects of HINI virus mediated influenza.
- 2. It has been said that "contusions cannot be aged accurately". Explain why you would agree or disagree with this statement.
- 3. Discuss the value of clinical examination findings in proving a charge of Grave Sexual Abuse in a court of law.
- 4. Discuss the uses and limitations of examining gastric contents in estimating time since death.
- 5. Describe the situations and autopsy features of ricochet gunshot wounds.
- 6. Describe the most useful special stains in your routine Forensic histopathology practice.
- 7. Describe the natural causes of birth asphyxia and its autopsy diagnosis.
- 8. Discuss the medico-legal issues surrounding organ donation in cases pending a judicial inquest.
- 9. Describe what is meant by "chain of custody". Discuss its importance in Forensic medical practice.
- 10. Briefly discuss the use of radiology in establishing identification of the living and dead.

MD (FORENSIC MEDICINE) EXAMINATION NOVEMBER 2010

Date: 22^{nd} November 2009 Time: 1.00 p.m. - 4.00 p.m.

PAPER 1

Answer all questions. Commence each answer on a separate page. Please write legibly.

1. 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

- (i) the surgeon's poor skill caused his death,
- (ii) the surgery was unnecessary,
- (iii) the mechanical heart valve used was improperly manufactured and sterilized

Discuss the role of the Judicial Medical Officer in investigating <u>these issues.</u> (100 marks)

- 2. You have just concluded the examination of a male hotel worker who has allegedly sexually assaulted a female guest a few hours earlier. Before completing the Medico-legal Examination Form, the police inform you that another female hotel guest alleges "rape" by the same man the night before. You are also told that a hotel maid has come forward and claimed she was also sexually assaulted the previous week by the same man. None of the female victims have been examined as yet by the JMO.
 - (i) Identify the medico-legal issues (50 marks)
 - (ii) Discuss how you would plan the examination of these alleged victims and the forensic tests you would perform. (50 marks)

- 3. Discuss the issues surrounding the retention of organs and tissues at autopsy for transplantation, research and education with particular reference to private rights and public interest. (100 marks)
- 4. A decomposed body is found in a jungle with extensive damage by animals and insects.
 - (i) What procedures would you undertake at the scene and at the autopsy with particular reference to the collection of samples for the forensic entomologist? (50 marks)
 - (ii) Discuss the significance of forensic entomological findings in such a death investigation (50 marks)

MD (FORENSIC MEDICINE) EXAMINATION NOVEMBER 2010

 $Date: 23^{rd} \quad November \ 2010 \qquad \qquad Time: 1.00 \ p.m. -4.00 \ p.m$

PAPER 1I

Answer <u>all ten</u> questions. Commence each answer on a separate page. Please write legibly.

- 1. Describe the range of injuries and mechanisms of death that might occur in penetrating chest trauma.
- 2. Describe the risk factors for the development of a subdural haematoma.
- 3. Describe how you would prepare for examination-in-chief and cross examination in an alleged case of infanticide.
- 4. Describe the factors in the body and characteristics of the weapon that you would take into account when assessing the degree of force used in the infliction of a stab wound.
- 5. Describe the approach to the autopsy and other allied procedures you would use to investigate a basal subarachnoid haemorrhage.
- 6. Describe the features of contact and near contact shotgun wounds.
- 7. Discuss the use of histological techniques to determine the age of injuries.
- 8. Briefly discuss the forensic significance of the eye.
- 9. Discus the clinical effects of different drug when combined with alcohol in a driver.
- 10. Write short notes on
 - a) positional asphyxia
 - b) dog bites
 - c) risk factors for Deep Vein Thrombosis.