

Paper II: Technical Subject

Section (A) - 45 Marks

1. Medical Jurisprudence

- 1.1 Universal principles of Medical ethics and Geneva declaration 1948
- 1.2 Consent and euthanasia Doctrine of informed expressed consent
- 1.3 Medical negligence and professional misconduct
- 1.4 Medical evidences and their application in court of law
- 1.5 Witness and expert witness testimony in court of law
- 1.6 Medical ethics in specific situations like HIV/AIDS, role of doctor in hunger striking
- 1.7 Acts/Regulations related to Medical practice and investigation
- 1.8 Human organ transplant act, Consumer protection act
- 1.9 NMC Act and Regulation
- 1.10 Muluki Ain; Chapters of Jyan Sambandhi, Ilaj Garneko, Jabarjasti Karani, HadnataKarani, PasuKarani, Kutpit, DandaSajaya, AdalatiBandobasta
- 1.11 Torture Compensation Act, 1996
- 1.12 Investigation of homicide, suicide, accidents, poisoning and sudden natural deaths in Nepal
- 1.13 Disaster management
- 1.14 Epidemiology and investigation of poisoning including snake bite, common poisons in Nepal
- 1.15 Scene of crime investigation

2. Forensic Pathology

- 2.1 Death, cause of death, mechanism of death and manner of death.
- 2.2 Changes after death and application to determine time of death.
- 2.3 Inquest and types of death for Medico-legal autopsy.
- 2.4 Autopsy procedures: External and internal examination and sample collection for various purposes
- 2.5 Examination of decomposed bodies, mutilated bodies, charred bodies, fragmentary remains
- 2.6 Autopsy in infants and fetus
- 2.7 Post-mortem artifacts
- 2.8 Exhumation
- 2.9 Hanging, strangulations, suffocation, drowning and other conditions of asphyxia
- 2.10 Different causes of sudden natural death in adult,
- 2.11 Sudden infant death syndrome
- 2.12 Death due to starvation
- 2.13 Death due to heat and cold
- 2.14 Injuries:
 - 2.14.1 Classification; blunt force, sharp force and firearm injuries
 - 2.14.2 Thermal, electrical, lightning and explosive injuries
 - 2.14.3 Self inflicted, fabricated and defense injuries
 - 2.14.4 Craniocerebral injuries
 - 2.14.5 Transportation injuries

3. Radiology in Forensic Field

- 3.1 Application of radiological methods in age estimation and personal identification

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- 3.2 Application of Radiological methods in autopsy work
- 3.3 Virtual autopsy

4. **Forensic Toxicology**

- 4.1 Medical and legal duties of health workers in cases of poisoning
- 4.2 Corrosive poisons
- 4.3 Irritant poisons
- 4.4 Neurotoxic poisons
- 4.5 Cardiac poisons
- 4.6 Asphyxiants
- 4.7 Drug dependence and drug abuse
- 4.8 Alcohol and medico legal aspects, drunkenness examination

Section (B) - 55 Marks

5. **Clinical Forensic Medicine**

5.1 **Sexual jurisprudence**

- 5.1.1 Sexual offences; rape, incest, sexual perversions and other types of sexual assault
- 5.1.2 Examination of victim/accused of sexual offences
- 5.1.3 Medico-legal aspect of abortion
- 5.1.4 Medico-legal aspect of virginity, pregnancy, delivery impotence, frigidity, sterility and artificial insemination

5.2 **Injury and clinical forensic medicine**

- 5.2.1 Simple and grievous hurt or Angabhanga
- 5.2.2 Medico-legal examination of physical assault cases
- 5.2.3 Medico-legal examination of victim of torture
- 5.2.4 Medico-legal aspect of domestic violence and gender based violence

5.3 **Forensic Psychiatry**

- 5.3.1 Insanity
- 5.3.2 Criminal and civil responsibilities of insane
- 5.3.3 Mental state examination
- 5.3.4 True and feigned insanity
- 5.3.5 Medico-legal aspects of mental unsoundness

5.4 **Age Estimation in living persons, dead bodies and skeletal remains**

6. **Identification**

- 6.1 Data for identification in living persons and dead bodies
- 6.2 Ante-mortem data and its application in personal identification
- 6.3 Different scientific methods of identification; fingerprint, dental method and DNA profiling
- 6.4 Disaster victim identification (DVI)
- 6.5 Medico-legal aspects of identification
- 6.6 Analysis of race, sex, age and stature from bones
- 6.7 Time since death and cause of death in skeletal remains examination
- 6.8 Personal identification from skeletal remains analysis
- 6.9 Application of dental information in age estimation and personal identification
- 6.10 Dental data and disaster victim identification
- 6.11 Bite marks analysis in crime investigation

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7. **Forensic Sciences**

- 7.1 Trace evidences and importance in crime investigation
- 7.2 Locard's principle in crime investigation
- 7.3 Blood and blood stains in investigation of criminal and civil cases
- 7.4 Semen and seminal stains in crime investigation
- 7.5 Analytical toxicology and its importance to find out the cause of death
- 7.6 Saliva, hairs and other biological samples in different criminal situations
- 7.7 Role of DNA analysis in civil and criminal cases
- 7.8 Situation of Forensic Sciences Laboratories in Nepal