

**The West Bengal University of Health Sciences**  
**M.D. (Forensic Medicine & Toxicology) Examination, 2016**

Paper - IV

Full Marks : 100

Time : 3 Hours

*Attempt all questions (10 marks for each question)*

1. Describe the recent advances on use of liquid chromatography and mass spectroscopy in clinical and forensic toxicology.
2. Write the recent advances of forensic taphonomy with special reference to investigation of water deaths.
3. Write the human rights rules in examination of mass grave.
4. Write in brief the forensic investigation of death due to anaphylactic shock.
5. Discuss the role of application of capillary electrophoresis in forensic science.
6. Write in brief the application of polygraph and brain mapping in criminology.
7. Write the principal application of neutron activation analysis.
8. Discuss medicolegal problem in artificial insemination.
9. Discuss method and application of superimposition photography and photo parlance.
10. Write briefly the common hazards as faced by medicolegal experts and suggest possible outcome.

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Paper : III

Full Marks : 100

Time : 3 Hours

*Attempt all questions (10 marks for each question)*

1. Write a short essay on gastric contents.
2. What is the mechanism of acetaminophen toxicity? Write briefly the management.
3. Write in brief the importance of smell of alcohol in breath.
4. What are the features of ethylene glycol poisoning? Give mechanism of action, diagnosis, management and post mortem findings.
5. Write down in brief the ethical guideline for biomedical research on human subject as laid down by I.C.M.R.
6. Write down the etiopathology of 'seat belt injury'.
7. Write in short the collection of medicolegal exhibits from gunshot wound.
8. What are odd and even rules in fire arm injury? What are the exceptions to this rule?
9. Write in short about drugs used for doping and how clinically it may be detected.
10. Write the composition and mode of action of snake venom and write down the national snake bite treatment protocol.

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**Paper : II**

**Full Marks : 100**

**Time : 3 Hours**

*Attempt all questions (10 marks for each question)*

1. Describe the pitfall as seen in determination of age.
2. Describe the role of a Forensic expert in case of baby change in hospital.
3. Write in brief the autopsy procedure in death due to criminal abortion.
4. Discuss the hazards of blood transfusion.
5. 'Medical examination in alleged sexual violation' – discuss the procedure.
6. Write in short cruelty on elder people.
7. A skeleton has been recovered from an overhead water tank. Discuss how you will process to know the identification and time since death and cause of death after examination of the same.
8. Write about ethics and laws in relation to animal experimentation.
9. Surrogate motherhood and the medicolegal problems associated with the procedure.
10. Write in short the medico legal aspect of torture and violation of human rights related to torture.

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**Paper : I**

**Full Marks : 100**

**Time : 3 Hours**

*Attempt all questions (10 marks for each question)*

1. Discuss the role of hair in Medicolegal investigation.
2. Discuss the role of odontology in forensic medicine.
3. Describe the anatomy of cardiac circulation with characteristic changes in autopsy in case of death due to acute myocardial infarction.
4. Describe the development of sex organ with special reference to variation to normal sex.
5. Define sudden death and write down the causes of sudden death due to respiratory condition.
6. What is brain stem death? What are the preconditions and exclusions for diagnosis of brain death? Who can donate organ as per Human Organ Transplantation Act?
7. Enumerate the biochemical changes in body fluid which help to fix up time passed since death.
8. Discuss the factors responsible for morbidity and mortality in high altitude.
9. Describe anatomy of hyoid bone and its role in forensic practice.
10. What is shear strain? How is it responsible for formation of wound? Write down factors responsible for intracranial injuries.