

# 2019 Scheme

Q.P. Code: 313001

Reg. no.: .....

## III Professional MBBS Part I Degree Regular/Supplementary Examinations

February 2025

### Forensic Medicine and Toxicology

Time: 3 Hours

Total Marks: 100

- Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers
- Indicate the question number correctly for the answer in the margin space
- Answer all parts of a single question together • Leave sufficient space between answers
- Draw table/diagrams/flow charts wherever necessary

#### 1. Multiple Choice Questions

(20x1=20)

The MCQ questions (Q.No. i to Q.No. xx) shall be written in the space provided for answering MCQ questions at page No. 51 of the answer book (the inner portion of the back cover page (PART III)).

Responses for MCQs marked in any other part/page of the answer book will not be valued

Question Numbers i - v are case scenario-based questions.

An adult male had anal intercourse with a 15-year-old boy without the boy's consent. The boy complained to his parents, resulting in a police complaint. On examination by a Forensic doctor after five hours of incidence, smears of lubricant and loose foreign pubic hairs with intact hair follicles were present around the anal orifice. Perianal abrasions and perianal bruising were noted. Whitish fluid was noted in the anal orifice, which was collected and sent to Forensic Science Laboratory.

- i. The alleged accused shall be booked under
  - a) Protection of Children from Sexual Offences Act
  - b) Prevention of Children from Sexual Offences Act
  - c) Protection of Child from Sexual Offences Act
  - d) Prevention of Child from Sexual Offences Act
- ii. The type of offence described here is
  - a) Buggery
  - b) Sodomy
  - c) Fellatio
  - d) Cunnilingus
- iii. The whitish fluid can be screened for Semen by the following test
  - a) Phenolphthalein test
  - b) Benzidine
  - c) Acid phosphatase
  - d) Luminol test
- iv. The maximum punishment for anal intercourse under the Protection of Children from Sexual Offences Act is
  - a) Seven years of rigorous imprisonment
  - b) Imprisonment for 10 years which may extend for the remainder of natural life and fine
  - c) Imprisonment for 20 years which may extend for the remainder of natural life and fine
  - d) Rigorous imprisonment for 20 years which may extend to a life sentence and fine or death sentence
- v. Buggery is
  - a) Anal intercourse between man and woman
  - b) Anal intercourse between man and animal
  - c) Sexual pleasure by self stimulation
  - d) Sexual intercourse with dead body

For questions vi - x, there are two statements marked as Assertion (A) and Reason (R). Mark your answers as per the options provided:

- vi. A: Pralidoxime is the antidote for organophosphorus poisoning  
R: Pralidoxime is a cholinesterase reactivator
  - a) Both A and R are true, R is the correct explanation of A
  - b) Both A and R are true, R is not the correct explanation of A
  - c) A is true, but R is false
  - d) A is false, but R is true
- vii. A: Heat haematoma resembles traumatic subdural haematoma  
R: Heat hematoma occurs when the cranium is exposed to tremendous heat.
  - a) Both A and R are true, R is the correct explanation of A
  - b) Both A and R are true, R is not the correct explanation of A
  - c) A is true, but R is false
  - d) A is false, but R is true
- viii. A: Battles sign is retro auricular ecchymosis  
R: It is due to bruising of the mastoid process in the middle cranial fossa fracture
  - a) Both A and R are true, R is the correct explanation of A
  - b) Both A and R are true, R is not the correct explanation of A
  - c) A is true, but R is false
  - d) A is false, but R is true
- ix. A: Diatom test is the screening test for antemortem drowning  
R: Sulphuric acid is used in the Diatom test
  - a) Both A and R are true, R is the correct explanation of A
  - b) Both A and R are true, R is not the correct explanation of A
  - c) A is true, but R is false
  - d) A is false, but R is true

(PTO)

x. A: Basophilic stippling is seen in Plumbism  
 R: Basophilic stippling is seen in Basophils  
 a) Both A and R are true, R is the correct explanation of A  
 b) Both A and R are true, R is not the correct explanation of A  
 c) A is true, but R is false  
 d) A is false, but R is true

**Question numbers xi-xv are multiple-response type questions. Read the statements & mark the correct answers appropriately.**

xi. Which of the following statements are true about the conduct money  
 1. It is money paid to the witness to cover travel expenses  
 2. It is given only in civil cases  
 3. If the witness feels money is inadequate, he can ask the court  
 4. It is given only in sessions court and its higher courts  
 a) 1, 2 and 3 are correct  
 b) 1, 3 and 4 are correct  
 c) 1, 2 and 4 are correct  
 d) 2 and 3 are correct

xii. Which of the statements are true about Carbon Monoxide  
 1. It is an odorless, colorless, non-irritating gas  
 2. It is heavier than air  
 3. It has 250 times greater affinity to Haemoglobin than oxygen  
 4. Its poisoning causes Cherry red colored Postmortem Lividity  
 a) 1, 2 and 3 are correct  
 b) 1, 3 and 4 are correct  
 c) 1, 2 and 4 are correct  
 d) 2 and 3 are correct

xiii. Juvenile Justice Act 2015  
 1. Maximum punishment under the act is life imprisonment  
 2. Every district has at least one Juvenile Justice board  
 3. Judicial Magistrate First Class heads Juvenile Justice Board  
 4. The Act defines Children as under the age of 14 years  
 a) 1, 2 and 3 are correct  
 b) 1, 3 and 4 are correct  
 c) 1, 2 and 4 are correct  
 d) 2 and 3 are correct

xiv. Which amongst the following are true about Abrasion  
 1. Superficial denudation of the tissues is called abrasion  
 2. Abrasion on the cornea can produce corneal opacity and can restrict vision permanently  
 3. Abrasion heals by scarring  
 4. Abrasion takes a month for complete healing  
 a) 1, 2 and 3 are correct  
 b) 1, 3 and 4 are correct  
 c) 2 and 3 are correct  
 d) 1 and 2 are correct

xv. Exhumation  
 1. Body can be exhumed only on written order from Magistrate  
 2. There is no time limit for exhumation in India  
 3. Exhumation is usually started in the early morning hours  
 4. Exhumation is exempted for certain religions  
 a) 1, 2 and 3 are correct  
 b) 1, 3 and 4 are correct  
 c) 1, 2 and 4 are correct  
 d) 2 and 3 are correct

**Question numbers xvi-xx are single-response type questions.**

xvi. Harvard's criteria is related to:  
 a) Rate of cooling of body in temperate climate  
 b) Formula for calculating the time since Death  
 c) Criteria for evaluating head injury in Harvard  
 d) Diagnosis of Brainstem death

xvii. Confirmatory test for blood stain is  
 a) Locard's test  
 b) Kastle-Meyer Test  
 c) Leucomalachite Green Test  
 d) Takayama test

xviii. Specific Antidote for Paracetamol poisoning is:  
 a) Physostigmine  
 b) N-acetyl cysteine  
 c) Oximes  
 d) Amyl nitrite

xix. The paraphilia associated with sexual gratification by rubbing or pressing the genitals on the body of a female, often in crowded public spaces like buses, trains or subways  
 a) Voyeurism  
 b) Fetishism  
 c) Stalking  
 d) Frotteurism

xx. Document compelling attendance of a witness in a court of law under penalty is  
 a) Habeas Corpus  
 b) Inquest  
 c) Parole  
 d) Subpoena

**Long Essays:****(2x10=20)**

2. A 30 year old man was missing for the last 3 days. Police recovered his body in a decomposed state from a near by pond and was brought for autopsy

- Describe briefly the various decomposition changes that could have appeared on the body
- What are the definite external and internal findings seen in a case of drowning
- What are the different types of drowning
- Describe the laboratory investigations done in a case of drowning (4+2+2+2)

3. A 50 year old farmer was found lying near a paddy field in a drowsy state. A bottle of poison was found near him. He was taken to General Hospital. He had two episodes of vomiting followed by effect of headache and dizziness. On examination pulse – 60/mt, BP 100/60 mmHg, pupils were pinpoint. Excessive salivation and sweating present. He had passed urine and his cloth was wet. There was kerosene like smell in his breath. He was expired by 48 hours after admission

- What is the probable cause of death in this case.
- Signs and symptoms of typical poisoning in this case.
- Describe the mechanism of action of this poison.
- What all samples will be collected from the body during postmortem examination and mention the preservatives used.
- Briefly describe the treatment for this poisoning (1+2+3+2+2)

**Short Essays:****(6x6=36)**

- Differentiate criminal negligence from civil negligence. Add a note on vicarious liability.
- Grievous hurt.
- Define Delusion. Mention its types with examples. Write its medicolegal importance.
- Primary impact injuries to a pedestrian hit by a vehicle.
- Describe the findings in a 16-year-old victim of rape who was a virgin. Enumerate the evidentiary materials to be collected.
- Describe and classify dactylography. Outline the medico-legal applications.

**Short Answers:****(6x4=24)**

- Write briefly on the maceration of the fetus and its medicolegal importance.
- What is privileged Communication. Mention the circumstances concerned with this in medical practice.
- Write briefly on the duties of a doctor towards the state.
- Dying declaration.
- Describe the procedure of recording evidence in a court of law.
- Draw and label the longitudinal section of a shotgun cartridge.

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