

PARUL UNIVERSITY
PARUL INSTITUTE OF APPLIED SCIENCES
MID SEMESTER INTERNAL EXAMINATION 2019
B. Sc. Semester-5
Subject: Forensic Science

Paper Code: 11107302

Title of the paper: Forensic Toxicology and Pharmacology

Date: 04/09/2019

Time: 2:30 pm to 4:00 pm

Maximum Marks: 40

Instructions:

- 1. All questions are compulsory, and options are given in first and second question only.**
- 2. Numbers to the right of question indicate the marks of respective question.**

Q. 1 Attempt any one question of the following. **(08)**

- (i) Explain the toxicological evidence and their forensic significance.
- (ii) What is pharmacology? Explain different types of route of administration in Human body.

Q. 2 **Attempt any three questions of the following.** **(12)**

- (i) Describe the branches of toxicology.
- (ii) Write a note on collection of viscera sample at the scene of crime.
- (iii) Explain the examination of viscera.
- (iv) Which factors effect in drug distribution?
- (v) What is drug toxicity? Explain with any example.

Q. 3 **Do as directed. Attempt all five questions.** **(05)**

- (i) What is forensic toxicology?
- (ii) Define clinical toxicology.
- (iii) What is pinocytosis?
- (iv) What is the difference between active and passive transport?
- (v) Define: Bioavailability

Q. 4 Write correct option in your answer sheet for following 15 multiple choice questions. **(15)**

MCQ 1 Father of the Forensic Toxicology.....

- | | |
|-------------------|-----------------------|
| (A) Calvin Godard | (B) M. Orfila |
| (C) Sir Henary | (D) None of the above |

MCQ 2 Toxicology is the study of.....

- | | |
|--------------------|-----------------------|
| (A) Poison | (B) Drugs |
| (C) Both (A) & (B) | (D) None of the above |

MCQ 3 Punishment for negligent conduct section..... IPC

- | | |
|---------|---------|
| (A) 277 | (B) 278 |
| (C) 280 | (D) 284 |

MCQ 4 deals with diagnosis and treatment of the effects of harmful diseases caused by toxic substance of exogenous origin.

- | | |
|---------------------------|-------------------------|
| (A) Industrial toxicology | (B) Clinical toxicology |
| (C) Genetic toxicology | (D) Both (B) & (C) |

MCQ 5 Biological specimens should be kept at refrigerated temperatures (4°C) for short-term storage (up to 2 weeks) and at frozen temperatures for long-term storage.

- | | |
|----------|-----------|
| (A) -5°C | (B) -10°C |
|----------|-----------|

- (C) -15°C (D) -20°C
- MCQ 6 Preservative for viscera
- (A) Rectified spirit (B) Saturated saline
(C) Both (A) & (B) (D) None of the above
- MCQ 7 Section IPC punishment for adulterating food or drink intended for sale.
- (A) 270 (B) 272
(C) 273 (D) 276
- MCQ 8 The correct sequence of pharmacokinetics phases a drug may pass through is ____.
- (A) Administration, inhalation, absorption and excretion (B) Formulation, Absorption, Metabolism and excretion
(C) Disintegration, absorption, elimination and excretion (D) Absorption, Distribution, Metabolism and excretion
- MCQ 9 The main mechanism of drug absorption in GI track is _____
- (A) Carrier mediated diffusion (B) Aqueous diffusion
(C) Endocytosis and Exocytosis (D) Lipid diffusion
- MCQ 10 A hydrophilic medicinal agent has the following properties.
- (A) Low ability to penetrate through the cell membrane (B) Penetrate through membranes by means of endocytosis
(C) Easy permeation through blood brain barrier (D) High reabsorption in renal tubules
- MCQ 11 The reasons determining bioavailability are _____
- (A) Rheological parameter of blood (B) Amount of substance obtain orally and quantity of intakes
(C) Extant of absorption and hepatic first pass effect (D) Glomerular filtration rate
- MCQ 12 What is the characteristic of oral route?
- (A) Fast onset of effect (B) Absorption depends on GI tract secretion and motor function
(C) A drug reaches the blood passing the liver (D) The sterilization of medicinal form is obligatory
- MCQ 13 Active transport requires_____ to transport the solute against its electrochemical gradient.
- (A) Enzyme (B) Energy
(C) Protein binding (D) All of the above
- MCQ 14 Drugs are transported across the membranes by:
- (A) Passive diffusion and filtration (B) Specialized transport
(C) filtration (D) Both a & b
- MCQ 15 Class II drug is having_____ properties
- (A) High solubility, low permeability (B) High permeability, low solubility
(C) Low permeability, low solubility (D) High solubility, high permeability