

M.Sc.(FS) Semester - 3 (CBCS) Examination
Oct/Nov-2022 (NEW COURSE)
Forensic Toxicology (Core)

Time: 2:30 Hours**Marks: 70****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

Q.1(A) Answer all questions in short: (04)

1. Briefly describe the various areas of toxicological application.

Q.1(B) Answer any two questions out of three: (10)

1. What do you understand about: i) Dose ii) Route and site of exposure
iii) Duration and frequency of exposure
2. Prepare a memorandum on the mechanism of toxicity.
3. What are the different factors that influence the effects of the poison?

Q.2(A) Answer all questions in short: (04)

1. Indicate the classification of Ophidian with samples.
2. What are the different lethal dose levels for venomous snakes?

Q.2(B) Answer any two questions out of three: (10)

1. What are the fatal dose, fatal period and mode of exposure of the below metallic poisons:
1) Arsenic 2) Mercury 3) Lead
2. Describe the following plant poison with its active ingredient, signs and symptoms, deadly dose and period. 1) Colocynthis 2) Calotropis 3) Claviceps purpurea
3. Develop the lethal dose, lethal period and mode of action of the organic chlorine pesticide.

Q.3(A) Answer in short: (04)

1. What did you understand about exposure? Also indicate various pathways and exposure sites.

Q.3(B) Answer any two questions out of three: (10)

1. How is the medication or poison disposed of from the host body?
2. Use an example to indicate the difference between active and passive transportation.
3. What are the different drivers of biotransformation?

Q.4(A) Answer in short: (04)

1. What types of viscera were taken during the injection and inhalation poisoning cases?
2. Identify blood and urine sampling techniques in the event of suspected intoxication.

Q.4(B) Answer any two questions out of three: (10)

1. Develop collection, storage and packing techniques for the items below.
1) Tissue 2) Blood 3) Urine
2. Provide a brief description of the role and responsibility of the forensic toxicologist.
3. What precautions will you follow while storing and shipping of viscera samples?

Q.5(A) Answer in short: (04)

1. Indicate the difference between the vapor distillation method and the fractionated distillation method.
2. What types of evidence assess in analytical toxicology?

Q.5(B) Answer any two questions out of three: (10)

1. Briefly explain two ways to extract metal poison.
2. Develop the method of removing pesticides from non-biological samples
3. Write a memo about the modified Stas-Otto method.
