

M.Sc.(FS) Semester - 1 (CBCS) Examination**Jan/Feb.-2022****Forensic Chemistry and toxicology (CORE)****Time: 1:30 Hours****Marks: 42****Instructions:**

1. Figures to the right indicate marks.
2. There are five questions in the question paper.
3. Answer any three of the following questions.

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

1. Define Ink? Give one technique for ink analysis.
2. State two functions of forensic chemistry division of FSL?

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

1. What is forensic chemistry? Explain about handling and analysis of chemical evidence.
2. Define fiber. Explain collection and analysis of fiber evidence.
3. What is bribe trap case? Explain how the cases of corruption are analysed using bribe trap.

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

1. What is hooch liquor? Which chemical is involved in poisoned liquor?
2. Give two adulterants used in ghee.

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

1. Define adulteration. Explain various adulteration types in detail.
2. What is alcoholic beverages? Give details about various alcoholic beverages and their chemical properties.
3. Write a technical note on working of prohibition and possession division.

Q.3(a) Answer all questions in short: (04)

1. What are elements of fire triangle? Draw the fire triangle.
2. Give flash point of petrol and diesel.

Q.3(b) Answer any two questions out of three: (04)

1. Define arson. Give details of various types of arsonists and fire investigation.
2. What is explosion? Describe the process of explosion and elements of an explosive device.
3. What is crude oil? Explain various types of petroleum products and common adulterant found in it.

Q.4(a) Answer all questions in short: (04)

1. What is psychotropic substance? Give two examples.
2. Give two examples of opioids.

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

1. Define biotransformation. Describe the concepts of drug toxicity in detail.
2. Explain various drugs and their types in detail.
3. What is a precursor chemical? Give the detailed account on analysis of drugs.

Q.5(a) Answer all questions in short: (04)

1. What is forensic toxicology? Who gave the famous statement "The dose makes the poison"?
2. Give the difference between toxin and toxic.

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

1. Define poison. Give classification of poison in detail.
2. What is toxicity? Explain various types of toxicity with suitable example.
3. Write a technical note on extraction and analysis of poisons in detail.