



Roll no.....

End Semester Examination, December 2024
B.Sc. (H) FS – 5th Semester
Forensic Chemistry & Toxicology (BSFS303A)

Time: 2.5 hrs.

Max Marks: **50**

Note: **All Questions are compulsory.** Marks are indicated against each question.

PART-A

Q.1 *First question will consist of 7 small questions covering entire syllabus out of which student has to attempt 5 questions and understanding level will be assessed.*

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|---|--------------|
| (a) What is a microcrystal test, and how is it used in forensic chemistry? | [CO-1] [L-1] |
| (b) Name the different types of alcoholic beverages and explain the method for ethanol detection. | [CO-2] [L-1] |
| (c) Define the fire triangle and explain its significance in fire investigations. | [CO-2] [L-1] |
| (d) Classify narcotic drugs with examples. | [CO-4] [L-1] |
| (e) What are the common signs and symptoms of arsenic poisoning? | [CO-3] [L-1] |
| (f) List different vegetable poisons and describe their toxic characteristics. | [CO-4] [L-1] |
| (g) Explain the principles of ethical reporting in forensic chemical analysis. | [CO-7] [L-1] |
| | 2x5 |

PART-B

Q.2 Describe the methods for the analysis of country-made and illicit liquors, including breath alcohol analysis.
[CO-2] [L-2]10

OR

Discuss the chemical basis and legal aspects of arson investigation, focusing on fire patterns and evidence collection.
[CO-2] [L-2]10

Q.3 Analyze how petroleum products are examined to detect adulteration and state the methods used.
[CO-5] [L-3] 10

OR

Explain BIS and ASTM methods for the analysis of kerosene and diesel.
[CO-5] [L-3]10

Q.4 Discuss the classification and forensic significance of narcotic drugs and psychotropic substances as per the NDPS Act.
[CO-4] [L-4]
10

OR

Outline the symptoms and toxicology of barbiturates and benzodiazepines.
[CO-3] [L-4]10

Q.5 Explain the general properties and forensic analysis of vegetable poisons like Dhatura and Oleander.
[CO-4] [L-4]
10

OR

Describe the toxic characteristics and detection methods for metallic poisons such as mercury and arsenic.
[CO-4] [L-4]10