

M.Sc.(FS) Semester - 3 (CBCS) Examination**Oct/Nov-2022 (NEW COURSE)****Forensic Chemistry (Core)****Time: 2:30 Hours****Marks: 70****Instructions:**

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

-
- Q.1 (a)** What do you understand by audit. Explain it. **04**
- Q.1 (b)** Answer any two questions out of three. **10**
- (1) What are the various steps of validation of method.
 - (2) Write a note on calibration of instruments
 - (3) What is accreditation, explain its significance in Forensic Laboratory .
- Q.2 (a)** What are scheduled drugs . Explain **04**
- Q.2 (b)** Answer any two question out of three. **10**
- (1) What are microcrystalline techniques, give any one test for alkaloids
 - (2) Explain chain of custody with suitable example for narcotic drugs
 - (3) What are the main steps of clandestine investigation
- Q.3 (a)** What are IEDs. Explain any one working mechanism **04**
- Q.3 (b)** Answer any two question out of three. **10**
- (1) Write a note on combustion
 - (2) What are the characteristics of high explosives
 - (3) Write a note on oxygen balance and explosive power
- Q.4 (a)** What are aliphatic and aromatic hydrocarbons **04**
- Q.4 (b)** Answer any two question out of three. **10**
- (1) What is PIONA, explain
 - (2) Explain any one technique for analysis of ignitable liquids
 - (3) Write a note on court testimony related to arson
- Q.5 (a)** Write a note on Iodine Value and its significance **04**
- Q.5 (b)** Answer any two questions out of three. **10**
- (1) Write a note on any two physical parameters for detection of adulteration in oil
 - (2) What is saponification and saponification value
 - (3) Describe the role of any one analytical techniques in detection of adulteration in oil
