

B.Sc. Semester - 5 (Remedial) (CBCS) Examination**March/April-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.

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- Que-1 (A) **Answer the following question very shortly (Any four)** (04)
- (1) The great philosopher Socrates was sentenced to death by drinking _____ Poison.
 - (2) Define Forensic Chemist?
 - (3) Explain Sec.45 of IEA ?
 - (4) Give the full form of ICP-MS and XRD?
 - (5) Which types of Frequencies are used in NMR Spectroscopy?
- Que-1 (B) **Answer the following question in brief (Any one)** (03)
- (1) Give the legal aspects of Forensic Chemistry?
 - (2) Define NMR spectroscopy with diagram ?
- Que-1 (C) **Answer the following question in detail (Any one)** (07)
- (1) Write a note on Examination of Chemical Exhibits in chemistry division?
 - (2) Write a note on Gas Chromatography?
- Que-2 (A) **Answer the following question very shortly (Any four)** (04)
- (1) Define Psychotropic Substances?
 - (2) Give an example of Non-Addictive Drug?
 - (3) Where the Clandestine Drug laboratories are located?
 - (4) Write the active Metabolite of Paracetamol?
 - (5) Give the two examples of Category-2 of precursor Drugs?
- Que-2 (B) **Answer the following question in brief (Any one)** (03)
- (1) Write about the Mechanism of Drug Toxicity and its types?
 - (2) Give the classification of Barbiturates?
- Que-2 (C) **Answer the following question in detail (Any one)** (07)
- (1) Write a short note on Opium plant as Narcotic Drugs?
 - (2) Give the Pathways of Drug Metabolism through various phases?
- Que-3 (A) **Answer the following question very shortly (Any four)** (04)
- (1) What is the difference between Toxic and Toxin?
 - (2) Write the Different Route of Administration of drugs ?
 - (3) Which techniques are used for the extraction of Non-Volatile Inorganic Poison?
 - (4) Examples of Chronic Poisoning?
 - (5) What should be the Ideal Characteristics for Homicide Poisoning?
- Que-3 (B) **Answer the following question in brief (Any one)** (03)
- (1) Classification of Poison on the basis of their Chemical Properties ?
 - (2) Sample collection and Preservation techniques for different evidences Related to poisoning cases?
- Que-3 (C) **Answer the following question in detail. (Any one)** (07)
- (1) Write a note on Digestion technique used for the Extraction of poison?
 - (2) Classification of Poison on the basis of their mode of Action and chemical Properties?

- Que-4 (A) **Answer the following question very shortly (Any four)** (04)
- (1) Define fire Triangle Mode?
 - (2) What is Vandalism?
 - (3) Full form of LDO & HSD ?
 - (4) What is Char pattern, give its types?
 - (5) Give the full form of LPG & CNG.
- Que-4 (B) **Answer the following question in brief (Any one)** (03)
- (1) Define Flash point and Smoke point in relation to kerosene?
 - (2) Which evidences that should collect in Arson Cases?
- Que-4 (C) **Answer the following question in detail. (Any one)** (07)
- (1) Give different types of Cases related to Arson.
 - (2) Which parameters can be used to detect the Adulteration in Kerosene?
- Que-5 (A) **Answer the following question very shortly (Any four)** (04)
- (1) Full form of FSSAI & BIS.
 - (2) The color of Phenolphthalein fades in basis medium due to the formation of _____ & _____.
 - (3) Name the two Enzymes that take part in alcohol Metabolism?
 - (4) Give the test for detection of Formalin in Milk?
 - (5) Give the chemical formula and structure for Anthracene Powder?
- Que-5 (B) **Answer the following question in brief (Any one)** (03)
- (1) How Detoxification is done by body in case of Alcohol?
 - (2) Give the physical properties for ethanol and methanol?
- Que-5 (C) **Answer the following question in detail. (Any one)** (07)
- (1) Describe the bribe trap cases and give the chemical analysis method for Phenolphthalein?
 - (2) Give the Chemical analysis for both ethyl alcohol and methyl alcohol?
