

B.Sc.(FS) Semester - 5 (Remedial) (CBCS) Examination**March/April-2022(Old 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 philosopher _____ was sentenced to death by drinking hemlock poison.
 - (2) Give the types of cases where forensic chemistry can be applied ?
 - (3) Give three physical properties, which are included in preliminary screening.
 - (4) Give the types of explosive, with examples ?
 - (5) Define Aqua-regia solution ?
- Que-1 (B) **Answer the following question in brief (Any one)** (03)
- (1) Give the Preliminary Screening test used in Forensic Chemistry ?
 - (2) Give the legal aspects of Forensic Chemistry ?
- Que-1 (C) **Answer the following question in detail (Any one)** (07)
- (1) Explain in details about the following cases.
 - Drugs cases
 - Explosives cases.
 - (2) Write a note on GC-MS with proper diagram ?
- Que-2 (A) **Answer the following question very shortly (Any four)(04)** (04)
- (1) Full form of NDPS and when the act came into action ?
 - (2) Give the types of Narcotic Drugs ?
 - (3) Explain Drug Dependence ?
 - (4) Give the full form of NCB & in which year it got established ?
 - (5) Name the Enzymes used for catalyzing in Phase-2 reaction ?
- Que-2 (B) **Answer the following question in brief (Any one)** (03)
- (1) How to detect Clandestine labs. and where they are located ?
 - (2) Write a short note on LSD drug?
- Que-2 (C) **Answer the following question in detail (Any one)** (07)
- (1) Write a note on Papaver Somniferum plant as Narcotic Drugs ?
 - (2) Define Drug Dependence. How the drug abuse can lead to Dependences, Recognize their Symptoms ?
- Que-3 (A) **Answer the following question very shortly (Any four)** (04)
- (1) What should be used as Preservative for Blood ?
 - (2) Give two types of Distillation method ?
 - (3) Who is the Father of Toxicology ?
 - (4) What is Lethal Dose (LD₅₀) in relation to Drugs ?
 - (5) Define Solvent Extraction ?

- Que-3 (B) **Answer the following question in brief (Any one)** (03)
- (1) Difference between Toxic & Toxin. Define Median Lethal Dose (LD_{50}).
 - (2) Explain Solvent Extraction, and also Define Soxhlet Extraction ?
- Que-3 (C) **Answer the following question in detail. (Any one)** (07)
- (1) Write a note on Dry Ashing and Wet Digestion Methods?
 - (2) What is Distillation, explain its type with proper diagram ?
- Que-4 (A) **Answer the following question very shortly (Any four)(04)** (04)
- (1) Define fire ?
 - (2) Give the Density of LDO at standard 15°C temperature ?
 - (3) Which solvent system is used in TLC for Petrol ?
 - (4) Define Arson, and name the types of Arsonist ?
 - (5) Give the Density of kerosene at 15°C temperature in CGS unit ?
- Que-4 (B) **Answer the following question in brief (Any one)** (03)
- (1) Classification of Fire on the basis of their source of Ignition ?
 - (2) Give Distillation Method for Petrol as per ASTM and draw diagram ?
- Que-4 (C) **Answer the following question in detail. (Any one)** (07)
- (1) Give different types of Cases related to Arson.
 - (2) Write a note on Characteristics of standard Petrol. Give its different Parameters?
- Que-5 (A) **Answer the following question very shortly (Any four)** (04)
- (1) What is FSSAI ?
 - (2) The colorless solutions of phenolphthalein give the λ_{max} value at ____
 - (3) What is Fatal Dose ?
 - (4) Give the test for Rancidity in Ghee ?
 - (5) Give the uses of Ethanol and Methanol ?
- Que-5 (B) **Answer the following question in brief (Any one)** (03)
- (1) Give the chemical method used for the detection of Ethyl Alcohol ?
 - (2) Write any three test used for the detection of Phenolphthalein ?
- Que-5 (C) **Answer the following question in detail. (Any one)** (07)
- (1) Write a note on Breath testing analyzer used for alcohol measurement ?
 - (2) Write a note on Hooch Poisoning. Describe the offences related to alcohol?
