Roll No…….. **Total No. of Printed Pages: [01]**
Total No. of Questions: [09]

B.Sc. (Forensic Science) (Semester – 2nd)
FORENSIC CHEMISTRY
Subject Code: BHFSS1204
Paper ID: [21132208]

Time: 03 Hours **Maximum Marks: 60**

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A **(2 marks each)**

Q1. Attempt the following:

a) What is the light fraction of petroleum distillation?
b) How many types of kerosene is available and how those types are distinguished?
c) What are clandestine laboratories?
d) Give two examples of depressants.
e) What are IMFL?
f) Explain 'hooch tragedy'
g) How VOD can be explained?
h) What is the Brisance of an explosive substance?
i) What are the isomeric forms of RDX?
j) Explain blast pressure.

Section – B **(5 marks each)**

Q2. Define 'Diesel' and elaborate the change in density parameter on adulteration

Q3. What are the different stages of addiction?

Q4. Describe the classification and production of wine.

Q5. Describe in detail each component of an explosive. Name two primary and secondary explosive each along with their chemical structure.

Q6. What are the methodologies used for the examination of post blast debris? Explain in detail.

Section – C **(10 marks each)**

Q7. What are hallucinogens? Explain their production, methods of extraction and examination.

Q8. (a) Explain the determination of BAC and metal ions in alcohol.

(b) What is the catalytic oxidation of alcohol? Explain esterification procedure for alcohols.

Q9. Elaborate the pressure profile of an explosion process taken place in air.