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(Pages : 2)

Name.....

Reg. No.....

**THIRD SEMESTER M.Sc. DEGREE (REGULAR/SUPPLEMENTARY)
EXAMINATION, NOVEMBER 2023**

(CBCSS)

Forensic Science

FSC 3E 18—MODERN AND APPLIED ANALYTICAL FORENSIC CHEMISTRY

(2020 Admission onwards)

Time : Three Hours

Maximum : 30 Weightage

I. Answer any *four* of the following. Short Answer Type Questions. Weightage 2 :

- 1 Give the Classification of Lipids based on its function with example.
- 2 Differentiate between cetane number and octane number.
- 3 Write a note on any *two* forms of heat transfer.
- 4 Define :
 - a) Cloud point.
 - b) Smoke point.
- 5 What is oxygen balance. Give its significance.
- 6 Give the significance of Fast Blue B test.
- 7 Define Acid value and iodine value.

(4 × 2 = 8 weightage)

II. Answer any *four* of the following. Short Essay Type Questions. Weightage 3 :

- 8 Explain various spectroscopic techniques used in analysis of drugs of abuse.
- 9 What are ILR ? Give the significance of its analysis.
- 10 Explain Baudoin Test for Detection of Sesame Oil in detail.
- 11 Write a note on Marquis test and Zimmerman test.
- 12 Mention any *two* methods of detection for any *two* adulterants present in milk.

Turn over

13 Mention the test fir determination of Nickel in vanaspati.

14 Discuss about the mechanism of deflagration.

(4 × 3 = 12 weightage)

III. Answer any *two* of the following. Long Essay Type Questions. Weightage 5 :

15 Elaborate on fire patterns.

16 Discuss the mechanism of Explosion in detail.

17 Mention the standard methods of analyzing adulteration on petroleum products.

18 Discuss about the analysis of Water extract from post blast residue.

(2 × 5 = 10 weightage)