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Name.....

Reg. No.....

**FOURTH SEMESTER M.Sc. DEGREE (REGULAR/SUPPLEMENTARY)
EXAMINATION, APRIL 2025**

(CBCSS)

Forensic Science

FSC4E30—SCIENTIFIC PROTOCOLS FOR FIRE INVESTIGATION

(2020 Admission onwards)

Time : Three Hours

Maximum : 30 Weightage

Section A*Answer any **four** questions.*

1. Give any *two* indicators of an incendiary fire.
2. What are combustible liquids ?
3. How is a char pattern created ?
4. What kinds of fuel undergo pyrolysis ?
5. Define fire Tetrahedron.
6. Give the significance of 'Headspace' in Gas Chromatography.
7. What is fire debris ?

(4 × 2 = 8 weightage)

Section B*Answer any **four** questions.*

8. Write a short note on various patterns fire patterns observed in fire scene.
9. Describe the process of interior examination in a vehicular fire.
10. Elucidate the stages of the development of fire.
11. What are Ignitable Liquid Residues ? Mention its role played in arson detection.

Turn over

12. Write a note on behaviour of fire in an outdoor area.
13. Describe the classes of fire.
14. Explain the Chromatographic tests made to identify the fire accelerants in the laboratory.

(4 × 3 = 12 weightage)

Section C

*Answer any **two** questions.*

15. An indoor fire has occurred in a prominent industrial godown. Suspecting arson, the law enforcement authorities have summoned a forensic team to process, collect and pack the evidence. How will you enable it?
16. Describe the systematic analysis of fire debris collected and forwarded from the scene of suspected arson.
17. Describe the application of Fire Extinguishers in fire management.
18. Describe the examination of appliances or electric short circuit as a cause of fire initiation.

(2 × 5 = 10 weightage)