BSc. FSC. March - 2025.

BLDE (DEEMED TO BE UNIVERSITY)

B.Sc. in Forensic Science

[Time: 3 Hours]

[Max. Marks: 80]

IV SEMESTER PAPER - I (Forensic Chemistry) OP CODE: 8455

Your answer should be specific to the questions asked.
Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Define forensic chemistry? Describe Comparison of petroleum products

Short Essays: (Any - 8)

 $5 \times 8 = 40 \text{ Marks}$

- 2. Describe fractionation of petroleum
- 3. Write short note on commercial uses different petroleum products
- 4. Explain Analysis of petroleum products
- 5. How to locate of point of ignition in arson
- 6. Recognition of type of fire incident
- 7. Discuss smoke as forensic evidence
- 8. Synthesis and characteristics of RDX
- 9. Write about bomb scene management
- 10. Explain blast injuries

Short Answers: (Any - 10)

 $3 \times 10 = 30 \text{ Marks}$

- 11. Types of evidence involved in forensic chemistry
- 12. Define distillation of petroleum
- 13. Comparison of kerosene and petrol
- 14. Define adulteration in kerosene and diesel
- 15. Smoke staining analysis
- 16. What is post-flashover burning
- 17. Explain blasting agents
- 18. Explain PETN (pentaerythritol tetranitrate)
- 19. Write about blast waves
- 20. Mechanism of explosion
- 21. Post blast residue analysis

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IV SEMESTER

PAPER - II (Forensic Biology)

QP CODE: 8456

Your answer should be specific to the questions asked. Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Write importance of forensic biology? Write in detail hair evidence

Short Essays: (Any - 8)

 $5 \times 8 = 40 \text{ Marks}$

- 2. Write significance of body fluids
- 3. Describe analytical methods for hair analysis
- 4. Define how microbial organisms as traced evidence
- 5. Forensic identification of pollen grains
- 6. Comparison method of suspect hair and victim hair
- 7. Forensic significance of diatoms
- 8. Explain botanical evidence
- 9. Bones analysis in wildlife investigation
- 10. Role of technology combating wildlife crime

Short Answers: (Any – 10)

 $3 \times 10 = 30 \text{ Marks}$

- 11. Define sub-branches of Forensic biology
- 12. Describe teeth as forensic evidence
- 13. Write biochemistry of human hair
- 14. What is forensic odontology? Type of cases involved in odontology
- 15. Describe sandalwood trees smuggling investigation
- 16. Evaluate crocodile poaching crime scene evidences
- 17. Forensic analysis of animal fur
- 18. Define national park and bird sanctuary
- 19. Illegal wood smuggling
- 20. Forensic entomology
- 21. Define tiger pug mark

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IV SEMESTER

PAPER - III (Technologic Methods in Forensic Science) OP CODE: 8457

Your answer should be specific to the questions asked. Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Describe fundamental principles and forensic applications of thin layer chromatography

Short Essays: (Any - 8)

 $5 \times 8 = 40 \text{ Marks}$

- 2. Define Spectroscopic methods and applications in forensic science
- 3. Fundamental principles of TLC
- 4. Define application of ultraviolet visible spectroscopy
- 5. Define atomic emission spectroscopy
- 6. Define X-ray spectrometry
- 7. Write short note on application of 3D photography
- 8. Explain Lambert-Beer law
- 9. Applications of ultraviolet photography
- 10. Define applications of photography in forensic science

Short Answers: (Any – 10)

 $3 \times 10 = 30 \text{ Marks}$

- 11. Write in detail atomic emission spectroscopy
- 12. Define fundamental principles of Microscopes
- 13. Describe the electron microscope
- 14. Describe forensic applications of microscopy
- 15. Explain applications of colorimetric analysis
- 16. Write about neutron activation analysis
- 17. Define types of microscopes in forensic investigation
- 18. Describe forensic importance of comparison microscope
- 19. Discuss application of simple microscope
- 20. Explain videography as evidence
- 21. Write a short note on crime scene photography