

BSc
Forensic Science - IV

Jan-2023

BLDE (DEEMED TO BE UNIVERSITY)

B.Sc. in Forensic Science

[Time: 3 Hours]

[Max. Marks: 80]

IV SEMESTER

PAPER I - (Forensic Chemistry)

QP 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. Write in detail the Distillation and fractionation of Petroleum.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Conditions for fire
3. Adulteration of petroleum products
4. Investigation of post-fire clue materials
5. Post flashover burning
6. Collection of Arson evidence
7. Military explosives
8. Blast injuries
9. Post blast residue collection
10. Searching the scene of explosion

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. TNT
12. Packing of petroleum sample
13. Capillary gas chromatography
14. Three modes of transfer of Heat
15. Role of Gas Chromatography/Mass spectrometry in fire debris analysis
16. Samples to be collected in a fire scene
17. Smoke stains in smoldering fires
18. Fire debris- Preliminary examination
19. Mechanism of Blast injury- Tertiary category
20. Blasting agents
21. Blast injury of Lungs

Jan-2023,

BLDE (DEEMED TO BE UNIVERSITY)

B.Sc. in Forensic Science

[Time: 3 Hours]

[Max. Marks: 80]

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 the importance of Biological evidence. Write a brief note on Significance of Hair evidence.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Diatoms and their forensic significance
3. Collection of Hair evidence
4. Illegal trading in wildlife items
5. Insects of forensic importance
6. Explain with neat labeled diagram structure of Human Hair
7. Identification of microbial organisms of forensic significance
8. Identification of physical evidence pertaining to wildlife forensics
9. Collection of entomological evidence during death investigations
10. Difference between Human and animal hair

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Any three significances of pollens in forensic science
12. Three insects of forensic importance
13. Decay curve for persistence of Hair evidence
14. Sex determination by hair samples
15. Pugmarks of Cat family
16. Three significance of entomological evidence
17. Disadvantages of Hair evidence
18. Three endangered species of plants species
19. Water sample analysis
20. Pugmarks of dog family
21. Any three phenotypic traits of Human hair

Jan-2023,

BLDE (DEEMED TO BE UNIVERSITY)

B.Sc. in Forensic Science

[Time: 3 Hours]

[Max. Marks: 80]

IV SEMESTER

PAPER III - (Technologic Methods in Forensic Science)

QP 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. Explain in detail the method of Atomic Absorption Spectroscopy. Write a note on fundamental principles and forensic applications of Atomic Absorption Spectroscopy

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Sample preparation for Chromatographic evidence.
3. Comparison Microscope.
4. Difference between TLC and GC.
5. Forensic applications of Atomic Emission Spectroscopy.
6. Fundamental principle of Neutron Activation Analysis.
7. Forensic applications of Mass spectroscopy.
8. Different types of Microscopes.
9. Forensic application of Electrophoresis.
10. Digital Photography.

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Forensic application of Gas Chromatography.
12. Three advantages of Videography in Forensics.
13. Three applications of Neutron Activation Analysis.
14. Three advantages of TLC.
15. Three advantages of Electron Microscope.
16. Lambert Beer Law.
17. Three advantages of UV Photography.
18. Three applications of X-Ray Spectrometry.
19. Three Types of Microscopes.
20. Application of Photographic Evidence.
21. Advantages of Infra-Red Spectroscopy.