

**B.Sc. Part—I (Semester—I) Examination**  
**FORENSIC SCIENCE**  
**(Basics of Forensic Science)**

Time : Three Hours]

[Maximum Marks : 80

**Note :—**(1) **ALL** questions are compulsory.

(2) Question No. 1 carries 8 marks while each of remaining questions carry 12 marks.

(3) Draw diagrams and write equations wherever necessary.

1. (A) Fill in the blanks :— 2

(i) Principles of Criminal Investigation was given by scientist \_\_\_\_\_.

(ii) Study of Lip Prints is known as \_\_\_\_\_.

(iii) Examination of Rubber Stamps is done under \_\_\_\_\_ division.

(iv) Cooling of the body is also known as \_\_\_\_\_.

(B) Multiple Choice questions :— 2

(i) Which of the following are chemical methods of fingerprint development ?

(a) Ninhydrin development

(b) Powder development techniques

(c) Laser Method for fingerprint development

(d) All of above

(ii) Considerable work in the field of Forensic Science has been done by which of the following Scientists ?

(a) Hans Gross

(b) Calvin Goddard

(c) Albert Osborn

(d) Mathieu Orfila

(iii) For Multicoloured Surfaces which of the following fingerprint powder is most suitable ?

(a) Silver Powder

(b) Fluorescent Powder

(c) Red Powder

(d) Black Powder

(iv) VSC stands for :

(a) Virtual Spectral Comparator

(b) Video Spectral Comparator

(c) Video Stamp Comparator

(d) Video Spectral Combination

(C) Answer in one sentence :— 4

(i) What is Partial hanging ?

(ii) Define 'Forgery'.

(iii) What is 'Crime Scene' ? Enlist types of Crime Scene.

(iv) What is Projected bloodstain pattern ?

## UNIT—I

2. (A) Explain the following :— 4  
(i) Locard's principle of Exchange.  
(ii) Law of Individuality.  
(B) Give brief account on Historical Perspective in Forensic Science. 5  
(C) State the role of Investigating officer on a Crime Scene. 3

### OR

3. (P) Enlist various divisions of forensic science laboratories with proper explanation. 6  
(Q) Give a brief account on principles in forensic science. 6

## UNIT—II

4. (A) Explain the following terms :— 4  
(i) Cast-off blood stain patterns  
(ii) Void patterns  
(iii) Angle of Impact  
(iv) Passive blood stain patterns.  
(B) Explain Point of convergence and area of origin. 4  
(C) Give significance of bloodstain pattern analysis in forensic science. 4

### OR

5. (P) Explain the following : - 4  
(i) Arterial Blood stain pattern.  
(ii) Transfer Blood stain pattern.  
(Q) Give detailed account on 'Growth of forensic science laboratories in India'. 4  
(R) Write in brief about 'History of forensic science'. 4

## UNIT—III

6. (A) Explain the role of Crime Scene Investigators. 4  
(B) Explain Biological theory of Criminal Behaviour. 4  
(C) Discuss collection and preservation of 'Biological Evidences' with examples. 4

### OR

7. (P) Explain different Theories of Criminal behaviour in detail. 6  
(Q) Define Crime Scene Reconstruction. Explain the stages of Crime Scene Reconstruction. 6

## UNIT—IV

8. (A) Give classification of fingerprint patterns. 4  
(B) Write in brief about Skid marks. 4  
(C) Give classification of Ear prints and its forensic significance. 4

### OR

9. (P) What is gait pattern ? Give its significance in forensic science. 6  
(Q) Explain 10 digit classification of fingerprints with examples. 6

### UNIT—V

10. (A) Define 'Forgery'. Explain its types. 6  
(B) How will you examine 'Questioned document' ? 4  
(C) What is Specimen Writing ? 2

#### OR

- (P) Write in brief about 'Traced Forgery'. 4  
(Q) What is Electrostatic Detection Apparatus ? How does it work ? 6  
(R) What are Charred Documents ? 2

### UNIT—VI

12. (A) Explain the terms :—  
(i) Postmortem Hypostasis  
(ii) Cadaveric Spasm  
(iii) Rigor Mortis  
(iv) Asphyxia. 4  
(B) Explain various modes of Death. 4  
(C) Write a note on 'Early signs of Death'. 4

#### OR

13. (P) How will you identify age of Bruise ? Give medicolegal significance of bruise. 4  
(Q) Give the difference between hanging and strangulation. 4  
(R) Explain the terms :—  
(i) Cafe coronary  
(ii) Throttling  
(iii) Dying Declaration  
(iv) Partial hanging. 4

