

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

Time : Three Hours]

[Maximum Marks : 80

- N.B. :-** (1) **ALL** questions are compulsory.
(2) Question No. **1** carries **8** (eight) marks while each of the remaining questions carry **12** marks.
(3) Draw diagram and write equation wherever necessary.

1. (A) Fill in the blanks :— 2
- (i) 'Principle of Exchange' was propounded by _____.
 - (ii) The state forensic laboratory was established at calcutta in _____.
 - (iii) 'Principle of document examination' was developed by _____.
 - (iv) Molecular death is also known as _____ death.
- (B) Multiple choice questions :— 2
- (i) Rigor mortis is :
 - (a) Stiffening of body
 - (b) Pugilistic attitude of body
 - (c) Electric shock
 - (d) Trauma
 - (ii) Adipocere formation is also known as :
 - (a) Mummification
 - (b) Cooling of body
 - (c) Time since interval
 - (d) Saponification
 - (iii) The reproduction of patterns of the friction ridges on the distal phalanges of the fingers and thumbs are called as :
 - (a) Sutures
 - (b) Tyre marks
 - (c) Finger prints
 - (d) Foot print
 - (iv) Dying declaration comes :
 - (a) Under section 34 I.P.C.
 - (b) Under section 32 I.E.A.
 - (c) Under section 32 I.P.C.
 - (d) Under section 32 Bombay Act

- (C) Answer in **ONE** sentence :— 4
- (i) Define physical evidence.
 - (ii) What is somatic death ?
 - (iii) What is document ?
 - (iv) What is spattered blood ?

UNIT—I

2. (a) Define Forensic Science. Explain its nature and functions. 3
- (b) Explain historical development of forensic science. 3
- (c) Write down the roles of forensic scientist. 3
- (d) Explain the following laws :
- (i) Law of individuality
 - (ii) Law of progressive change. 3

OR

3. (p) Explain the international agency. 4
- (q) Explain the organizational set up of Forensic Science Laboratory (F.S.L.) in central and state level. 4
- (r) What is the educational qualification and training of Forensic Scientist ? 4

UNIT—II

4. (a) Write down the following divisions in the Forensic Science Laboratory (F.S.L.) :
- (i) Ballistic Division
 - (ii) Lie-detection Division
 - (iii) Biology Division. 6
- (b) Explain directionality of bloodstain with proper diagram. 3
- (c) Explain grid and perimeter ruler method. 3

OR

5. (p) Explain the following patterns :
- (i) Expired pattern
 - (ii) Drip pattern. 4
- (q) Explain the importance of Bloodstain pattern interpretation. 4
- (r) What is Transfer pattern ? Explain forensic significance of it. 4

UNIT—III

6. (a) Explain crime scene survey in detail. 4
- (b) Explain the role and duties of first responding officer. 4
- (c) Define physical evidence. Explain the importance of physical evidence in criminal investigation. 4

OR

7. (p) What is crime scene reconstruction ? Explain forensic significance of it. 4
- (q) Define crime scene. Discuss criminal behaviour. 4
- (r) Write down the components of crime scene management :
- (i) Information Management
 - (ii) Logistic Management. 4

UNIT—IV

8. (a) Write in brief on Gait Pattern. 4
- (b) Write in brief on development of latent fingerprint by powder method. 4
- (c) Explain the lifting of footprint. 4

OR

9. (p) Explain the collection of footprint. 4
- (q) Write in brief nature and location of fingerprint. 4
- (r) Explain forensic significance of Lip print and Ear print. 4

UNIT—V

10. (a) Explain the following terms :—
- (i) Erasure
 - (ii) Alteration. 4
- (b) Write in brief handling and preservation of documents. 4
- (c) Explain the principle of handwriting identification. 4

OR

11. (p) What are class characteristics of handwriting ? 4
- (q) How to obtain request writing for comparison ? 4
- (r) Discuss order of writing. 4

UNIT—VI

12. (a) Explain any four unnatural offences. 4
- (b) Explain the following term :
- (i) Medical certificates
 - (ii) Medicolegal reports. 4
- (c) Define Hanging. Explain types of Hanging. 4

OR

13. (p) Define Injury. Explain abrasion in detail. 4
- (q) Write a note on determination of time since death. 4
- (r) Explain early changes of death. 4