

(6 pages)

Reg. No. :

Code No. : 30720 E Sub. Code : CAFC 21

B.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2024

Second Semester

Criminology and Forensic Science – Allied

FORENSIC PHYSICS

(For those who joined in July 2022)

Time : Three hours

Maximum : 50 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Which of the following properties is used to determine the density of a substance?
 - (a) Refractive index
 - (b) Birefringence
 - (c) Weight
 - (d) Volume

2. Which of the following instruments is used to analyze the chemical composition of a substance?
 - (a) Microscope
 - (b) Densitometer
 - (c) Spectroscope
 - (d) Refractometer
3. Which of the following is not a type of glass?
 - (a) Borosilicate glass
 - (b) Tempered glass
 - (c) Crystal glass
 - (d) Safety glass
4. What is the forensic significance of analyzing the fracture patterns of glass?
 - (a) To determine the type of glass
 - (b) To identify the direction of force
 - (c) To establish the location of a crime
 - (d) To identify the presence of adulterants
5. Which of the following is not a type of natural fiber?
 - (a) Cotton
 - (b) Wool
 - (c) Nylon
 - (d) Silk

6. What is the forensic significance of analyzing soil samples in a criminal investigation?
 - (a) To determine the location of a crime
 - (b) To identify the type of soil
 - (c) To determine the origin of soil samples
 - (d) To identify the presence of toxic substances in soil samples
7. Which of the following is not a component of a cartridge?
 - (a) Bullet
 - (b) Primer
 - (c) Propellant
 - (d) Cartridge case
8. What is the forensic significance of analyzing tool marks in a criminal investigation?
 - (a) To determine the location of a crime
 - (b) To identify the type of tool used
 - (c) To establish the identity of a suspect
 - (d) To identify the direction of force
9. What is the nature of digital evidence in computer forensics?
 - (a) Physical evidence that can be collected and analyzed
 - (b) Documentary evidence that can be presented in court
 - (c) Eyewitness testimony about digital activity
 - (d) Statistical evidence about digital activity

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10. Which of the following is not a type of computer virus?
 - (a) Trojan horse
 - (b) Adware
 - (c) Worm
 - (d) Phishing scam

PART B — (5 × 3 = 15 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) What are the importances of equipments used in forensic physics?
Or
(b) Short note on electromagnetic spectrum.
12. (a) What are the Types of glasses?
Or
(b) Describe the analysis of concrete for the determination of adulterants.
13. (a) Explain the Types of Fibers.
Or
(b) Describe the importance of cloth evidence.
14. (a) Elucidate the Types of ballistics.
Or
(b) Describe the forensic importance of Tyre marks.

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15. (a) Explain the computer virus and its types.

Or

- (b) Discuss the emergence of computer crimes and their classification.

PART C — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Discuss in detail about Forensic Physics.

Or

- (b) Explain the concept of birefringence in detail. How is it useful in forensic investigations?

17. (a) Describe the types and composition of glass. Discuss the fracture patterns of glass and how they are analyzed in forensic investigations.

Or

- (b) Explain the various methods used for this analysis.

18. (a) Provide examples of forensic cases where cloth evidence played a crucial role in identifying suspects or establishing the location of a crime.

Or

- (b) Explain in detail about the forensic importance of soil.

19. (a) Explain in detail about the fire arms.

Or

- (b) Explain about the types of ballistics.

20. (a) Write an essay about the cyber crime and its prevention.

Or

- (b) What are the various types of computer crimes, and how do they differ from traditional crimes?