

**PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)**

**BSc DEGREE EXAMINATION MAY 2025  
(Fifth Semester)**

**Branch – COMPUTER SCIENCE**

**MAJOR ELECTIVE COURSE – I: CYBER SECURITY**

Time: Three Hours

Maximum: 50 Marks

**SECTION-A (5 Marks)**

Answer **ALL** questions

**ALL** questions carry **EQUAL** marks (5 x 1 = 5)

- 1) Which of the following describes the primary objective of Cyber Security?
  - a) To enhance computational speed
  - b) To ensure confidentiality, integrity, and availability of data
  - c) To replace traditional security systems
  - d) To promote unrestricted internet access
- 2) What is the key characteristic of Blockchain technology that ensures transparency?
  - a) Centralized control
  - b) High computational cost
  - c) Immutability of transactions
  - d) Dependency on third-party intermediaries
- 3) Which of the following represents a pitfall of social media usage?
  - a) Data privacy breaches
  - b) Increased connectivity
  - c) Improved marketing strategies
  - d) Enhanced user engagement
- 4) Which mode of digital payment uses biometric authentication for transactions?
  - a) Unified Payment Interface (UPI)
  - b) Aadhar Enabled Payments
  - c) e-Wallets
  - d) Banking Cards
- 5) What is the primary purpose of a host firewall in mobile device security?
  - a) To manage third-party software downloads
  - b) To block unauthorized access to the device
  - c) To monitor Wi-Fi connections
  - d) To back up personal data

**SECTION - B (15 Marks)**

Answer **ALL** Questions

**ALL** Questions Carry **EQUAL** Marks (5 x 3 = 15)

6. (a) Explain the concept of Network Neutrality and its relevance in ensuring fair internet access.  
OR  
(b) Discuss the role of Computer Forensics in investigating cybercrimes.
7. (a) Describe the characteristics and need for Blockchain technology.  
OR  
(b) Analyze how SQL Injection happens and suggest preventive measures.
8. (a) Identify and explain the challenges associated with social media security.  
OR  
(b) Discuss the best practices for using social media safely.
9. (a) Explain the components of E-Commerce and elements of ecommerce security and their significance.  
OR  
(b) Evaluate the common frauds in digital payments and propose remedial measures.

**Cont...**

10. (a) Outline the key elements of a strong password policy for mobile devices.

OR

(b) Assess the significance of Wi-Fi security and configuration of basic security policy in protecting mobile devices.

**SECTION -C (30 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks (5 x 6 = 30)

11. (a) Critically evaluate the existing legal frameworks and laws governing Cyber Security.

OR

(b) Explore the future trends and challenges in Cyber Security and their implications.

12. (a) Analyze the architecture of Blockchain technology and its applications in various industries.

OR

(b) Construct a detailed explanation of Blind SQL Injection exploitation with a real-world case study.

13.(a) Investigate the impact of viral content and hashtag trends on social media platforms.

OR

(b) Critically analyze the laws regarding posting inappropriate content on social media.

14. (a) Design a comprehensive plan for securing digital payment systems and modes of digital payments.

OR

(b) Evaluate the role of RBI guidelines in protecting customers during unauthorized banking transactions.

15. (a) Discuss the best practices for managing third-party software downloads on mobile devices and analyse the significance of host firewall and anti-virus.

OR

(b) Assess the significance of data backup and its role in mobile device security.

Z-Z-Z END