

Dr. Babasaheb Ambedkar Open University
Term End Examination January – 2026

Course	: BSCIT	Date	: 28/02/2026
Subject Code	: BSCIT-503	Time	: 03:00pm to 05:15pm
Subject Name	: Cyber Security	Duration	: 02 Hours
		Max. Marks	: 70

Section A

Answer the following (Attempt any three) (30)

1. Explain the concept of computer forensics and describe the steps involved in digital forensic investigation.
2. Explain guidelines for creating secure passwords and describe the importance of two-step verification and antivirus software.
3. Explain firewall concepts and describe different types of firewalls and their configuration.
4. Explain wireless security threats and discuss methods used to secure wireless networks.
5. Explain penetration testing along with phases involved in penetration testing.

Section B

Answer the following (Attempt any four) (20)

1. Explain Phishing and Email Spoofing as cyber crimes.
2. Explain Symmetric and Asymmetric Encryption with suitable examples.
3. What is HTTPS and why is it important for secure browsing?
4. Write a short note on Malicious Mobile Applications.
5. Write a short note on Digital Evidence Preservation.
6. Differentiate between White Hat and Black Hat Hackers.

Section C

Part – A (Multiple Choice Questions) (10)

- 1 Which organization is responsible for assigning IP addresses globally?
A ICANN B IANA
C CERT-In D ISP
- 2 A digital signature mainly provides:
A Confidentiality B Compression
C Anonymity D Authentication and integrity
- 3 Cyber forensics mainly deals with:
A Preventing malware B Designing firewalls
C Collecting digital evidence D Encrypting data
- 4 A Denial of Service (DoS) attack aims to:
A Block legitimate access B Steal passwords
C Destroy hardware D Encrypt files
- 5 Cyber security initiatives in India mainly focus on:
A Protection of cyberspace B Hardware manufacturing
C Digital payments only D Social media promotion
- 6 A firewall primarily protects against:
A Power failure B Unauthorized access
C Hardware damage D Data compression

- 7 Which is a secure web browser feature?
A Auto-play videos B Pop-up ads
C HTTPS support D Flash content
- 8 Which practice is safest while browsing?
A Clicking unknown links B Using public Wi-Fi without VPN
C Disabling antivirus D Checking website URL
- 9 Installing apps only from Play Store helps prevent:
A Battery drain B Malware
C Network failure D Storage issues
- 10 Digital evidence must be:
A Modified B Deleted
C Preserved carefully D Shared publicly

Part – B (Do as Directed)

(10)

State whether the following statements are true or false

- 1 A Trojan Horse can replicate itself automatically like a worm.
2 Steganography converts plaintext into unreadable ciphertext.
3 Digital evidence does not require documentation during handling.
4 Ethical hacking is performed with permission of the system owner.
5 Installing applications from unknown sources may introduce malware.
6 Phishing emails often impersonate trusted organizations.
7 Public Wi-Fi networks are always secure for online banking.
8 Private browsing mode permanently stores browsing history.
9 A firewall can be implemented using hardware, software, or both.
10 Using the same password for multiple accounts increases security.
