PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2025
(Sixth Semester)

Branch – INFORMATION TECHNOLOGY

MAJOR ELECTIVE COURSE –II : NETWORK AND SYSTEM 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 key is kept public in a public key cryptosystem?
   - (i) Encryption keys
   - (ii) Cipher text
   - (iii) Decryption keys
   - (iv) Private keys

2. Which of the following is not a common type of computer virus?
   - (i) Worm
   - (ii) Trojan
   - (iii) Ransomware
   - (iv) Firewall

3. What is the prevention of access to the database by unauthorized users referred to as?
   - (i) Integrity
   - (ii) Reliability
   - (iii) Security
   - (iv) Inconsistency

4. What must always be kept on in the computer system to protect it against hackers and different kinds of viruses?
   - (i) Firewall
   - (ii) Software
   - (iii) Script
   - (iv) Antivirus

5. What is the term for the act of intentionally spreading false information or rumors online with the intent to deceive?
   - (i) cybersecurity
   - (ii) Disinformation
   - (iii) Transparency
   - (iv) Hacking

SECTION - B (15 Marks)
Answer ALL Questions
ALL Questions Carry EQUAL Marks   (5 x 3 = 15)

6. a. Explain about security attacks.

   OR

   b. Analyze MD5.

7. a. Explain the targeted malicious code.

   OR

   b. Show the importance of biometrics.

8. a. How can sensitive data be protected from unauthorized access?

   OR

   b. Explain about multilevel security.

9. a. Describe the threats in a network.

   OR

   b. Bring out the salient features of physical security.

10. a. Prepare the list of software failures.

    OR

    b. Explain about computer crime.

SECTION -C (30 Marks)
Answer ALL questions
ALL questions carry EQUAL Marks   (5 x 6 = 30)

11 a   Elucidate the various components of computer security.

OR

  b   Classify the important features of public key cryptography.

12 a   Examine the virus and other malicious code.

OR

  b   Discover the various file protection mechanisms used to safeguard data.

13 a   Summarise the essential database security requirements that should be followed to ensure the protection of sensitive data.

OR

  b   Justify the need of multilevel database.

14 a   Analyze the role of a firewall in network security.

OR

  b   Identify some organizational security policies for networks.

15 a   Discuss how to protect programs and data.

OR

  b   Point out the various ethical issues in computer society.

Z-Z-Z   END