

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

**BSc DEGREE EXAMINATION MAY 2026
(Sixth Semester)**

Branch – **INFORMATION TECHNOLOGY**

MAJOR ELECTIVE COURSE – II – NETWORK AND SYSTEM SECURITY

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer **ALL** questions

ALL questions carry EQUAL marks (10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	Which is a major component of computer security? (i) Confidentiality (ii) Printing (iii) Editing (iv) Formatting	K1	CO1
	2	Recall the use of Cryptography (i) Compress data (ii) Secure communication (iii) Delete files (iv) Transfer hardware	K2	CO1
2	3	Name the Source program. (i) Machine Code (ii) High-level Program Code (iii) Executable File (iv) Object File	K1	CO2
	4	Describe the computer virus. (i) Hardware Component (ii) Malicious Software (iii) Operating System (iv) Network Device	K2	CO2
3	5	Database security mainly protects Predict form the following the (i) Hardware Devices (ii) Stored Data (iii) Printers (iv) Keyboards	K1	CO3
	6	Infer the use of Data integrity ensures (i) Data is Accurate and Consistent (ii) Data is Deleted (iii) Data is Encrypted Only (iv) Data is Printed	K2	CO3
4	7	Recall that the computer network is a collection of _____ (i) Independent Computers (ii) Interconnected Computers (iii) Software Programs (iv) Operating Systems	K1	CO4
	8	Associate the term Unauthorized access to network resources (i) Network Threat (ii) Network Backup (iii) Data Compression (iv) File Transfer	K2	CO4
5	9	Choose the Legal protection of software is mainly achieved through Which among the following? (i) Copyright (ii) Formatting (iii) Printing (iv) Editing	K1	CO5
	10	Show the need of Employee monitoring by organizations (i) Increase Salary (ii) Ensure Security and Productivity (iii) Reduce Working Hours (iv) Provide Entertainment	K2	CO5

Cont...

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Explain computer security and different types of security attacks.	K2	CO1
		(OR)		
	11.b.	Express the components of computer security.		
2	12.a.	Demonstrate how to ensure security for source programs.	K3	CO2
		(OR)		
	12.b.	Examine the causes and impact of non-malicious program errors.		
3	13.a.	Illustrate how database integrity is maintained using suitable techniques.	K3	CO3
		(OR)		
	13.b.	Demonstrate reliability and integrity in database systems.		
4	14.a.	Analyze the impact of network threats on organizational security.	K4	CO4
		(OR)		
	14.b.	Illustrate intrusion detection systems with an example.		
5	15.a.	Analyze the role of information law in computer security.	K4	CO5
		(OR)		
	15.b.	Identify the rights of employees and employers in information security.		

SECTION - C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Classify various cryptography techniques.	K4	CO1
2	17	Analyze the various Bio – metrics mechanisms used to ensure authentication.	K4	CO2
3	18	Explain database security requirements and evaluate their role in protecting data.	K4	CO3
4	19	Identify the different network threats and evaluate network security controls used to prevent them.	K4	CO4
5	20	Categorize the different kinds of computer crimes.	K4	CO5

Z-Z-Z

END