

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

**MCA DEGREE EXAMINATION MAY 2025
(Second Semester)**

Branch – COMPUTER APPLICATIONS

MAJOR ELECTIVE COURSE – I : SECURITY IN COMPUTING

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 | In ----- attack, the attacker tries all possible passwords in some automated fashion . a)Ransomware b)Spoofing c)Brute force d)Phishing | K1 | CO1 |
| | 2 | A ----- list is a row of the access matrix showing all those privileges or access rights for a given subject. a) Access control b) log c) user d)Privilege | K2 | CO1 |
| 2 | 3 | In ----- technique the attacker regains control from the operating system with raised privileges. a)Privilege Escalation b)shared global data c) Memory overwriting d) Brute force | K1 | CO1 |
| | 4 | ----- attack puts a human between two automated processes so that the human unwittingly helps the spammers register automatically for free email accounts. a) Man-in-the-middle b) User -in-the-Middle c) Page in the middle d) Man-in-the-mobile. | K2 | CO1 |
| 3 | 5 | ----- is a process by which an intruder can tap a wire and read radiated signals without making physical contact with the cable. a) Radiation b)Inductance c)Packet Sniffing d) Cable splicing | K1 | CO1 |
| | 6 | ----- is an example of Bigdata Application framework. a)Apache Hadoop b) Spark c) Flink d) All the above | K2 | CO2 |
| 4 | 7 | In ----- service model customer has his or her own applications, but the cloud affords the languages and tools for creating them. a)PaaS b) SaaS c)IaaS d) XaaS | K1 | CO2 |
| | 8 | ----- plan documents how a business will continue to function during or after a computer security incident. a)Business Continuity b) security c) Business d) Risk | K2 | CO2 |
| 5 | 9 | ----- involves rearranging the order of the cipher text to break any repeating patterns in the underlying plain text. a)Substitution b)Transposition c) Rotor machines d) one time pads | K1 | CO2 |
| | 10 | ----- is a means of associating a mark unique to an individual with a body of text. a) MAC code b) Message Digest c)Digital Signature d) Digital certificate | K2 | CO2 |

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 <i>Vulnerability-Threat- Control</i> Paradigm for Computer security. | K2 | CO1 |
| | (OR) | | | |
| | 11.b. | Contrast Identification from authentication and categorize the different forms of authentication. | | |
| 2 | 12.a. | Enumerate the different types of Browser attacks and counter measures to handle them. | K3 | CO5 |
| | (OR) | | | |
| | 12.b. | Discuss the role of Root Kit in creating threat to the Operating system. | | |
| 3 | 13.a. | Explain the design of firewalls for network security. | K3 | CO4 |
| | (OR) | | | |
| | 13.b. | Explore the security aspects of Datamining and Bigdata. | | |
| 4 | 14.a. | Bring out the salient differences between Public IaaS and Private network security. | K4 | CO5 |
| | (OR) | | | |
| | 14.b. | Infer the role of Incident response plan and Incident response team in handling incidents. | | |
| 5 | 15.a. | Justify the need for digital signatures and categorize the algorithms needed to implement them. | K4 | CO3 |
| | (OR) | | | |
| | 15.b. | Analyze the key security issues to be addressing in Electronic voting. | | |

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 | Give an Overview of DES algorithm and compare the different forms of DES. | K4 | CO5 |
| 2 | 17 | Analyze about -Unintentional programming oversights and their implications. | K4 | CO4 |
| 3 | 18 | Throw a light on – <i>War on networks</i> by highlighting the Threats to network communication. | K4 | CO5 |
| 4 | 19 | Elaborate on the Tools and Techniques for cloud security. | K4 | CO2 |
| 5 | 20 | Illustrate the process of asymmetric Encryption with RSA and evaluate its strength. | K4 | CO5 |