

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
(For candidates admitted during the academic year 2019 – 2020 and thereafter)

B. C. A. DEGREE EXAMINATION, APRIL 2024
SIXTH SEMESTER

COURSE : MAJOR CORE
PAPER : SECURITY CONCEPTS
SUBJECT CODE : 19CS/MC/SC65
TIME : 3 HOURS **MAX. MARKS: 100**

SECTION A

ANSWER ALL QUESTIONS. (20 X 1 = 20)

Choose the correct answer:

1. A weakness or fault in a system that opens to attack or damage is _____.
(a) Vulnerability (b) Exposure (c) Threat (d) All the above.
2. _____ is the physical security framework standard.
(a) ISO 27799 (b) ISO 27000 (c) ISO 27002 (d) none of the mentioned
3. _____ type of cloud computing delivers a single application through the browser to customers using a multitenant architecture.
(a) IaaS (b) PaaS (c) SaaS (d) All of the mentioned
4. HSRP stands for _____.
(a) Hot Standard Router Protocol (b) Hot Standby Router Protocol
(c) Hash Standard Router Protocol (d) None of the mentioned.
5. Generic Routing Encapsulation (GRE) tunnels are called as -----.
(a) Non-encrypted (b) Encrypted
(c) Both a and b (d) None of the mentioned
6. Automated call distribution (ACD), interactive voice response (IVR) systems, call recording systems are the components of _____.
(a) Voicemail systems (b) Contact center components
(c) Call control elements (d) All of the mentioned
7. _____ command removes any current permissions settings for the specified users or roles.
(a) DELETE (b) REVOKE
(c) REMOVE (d) None of the mentioned.
8. Message authentication can be done using _____.
(a) Encryption (b) Hash function
(c) Both a and b (d) None of the mentioned.
9. The security issues to keep in mind by administrators is _____.
(a) adware, spyware (b) administration, network access
(c) Both a and b (d) None of the mentioned
10. Web Application Security concerns include _____.
(a) SQL injection, general attacks (b) forms & scripts
(c) cookies (d) All the above.

Fill in the blanks :

11. _____ exploit service flaws in computers to inhibit use by legitimate users.
12. A _____ is a mathematical formula that converts a string of characters to a numeric code.

13. Bell-LaPadula model is a(n) _____.
14. Apple allows an administrator to either disable iCloud altogether on the device, or on a per-app basis to prevent _____.
15. Jammer is an example for _____ attack.
16. IPPBX stands for _____.
17. A _____ device combines best features of flash drives and portable hard drives.
18. _____ is the technique in which multiple copies of the same document are automatically detected and stored only once.
19. Databases offer developers the ability to create and reuse SQL code through the use of objects called _____.
20. _____ method limits the number of connections per second per IP address to combat attacks.

SECTION - B

Answer **ALL** the questions

(5 X 2 = 10)

21. State the objectives of computer security.
22. Mention the security issues in TCP/IP.
23. What is split tunnelling?
24. Write the challenges in DLP Solutions.
25. Define steganography.

SECTION - C

Answer any **EIGHT** questions

(8 X 5 = 40)

26. Brief about the types of attacks.
27. Discuss the access control techniques.
28. Write notes on the functions of hubs, switches and routers.
29. Explain about proxy servers and its types.
30. Explain IPSec Protocol.
31. Discuss about wireless vulnerabilities and mitigations.
32. Elaborate the Kerberos authentication process.
33. Discuss the Storage Infrastructure facilities to be maintained for storage security.
34. Differentiate authentication from authorization with respect to user security.
35. Explain the application security practices that appear in SDL.

SECTION - D

Answer any **THREE** questions

(3 X 10 = 30)

36. Explain the concepts behind OSI security architecture.
37. Elucidate on core firewall functions.
38. Write the purpose of IDS, its types and detection models.
39. Describe database security layers, database backup and recovery procedures.
40. Illustrate the substitution techniques and write their characteristics.
