

(FOR THE CANDIDATES ADMITTED

SUBJECT CODE **21UCT518**

DURING THE ACADEMIC YEAR 2021 – 2024 ONLY)

REG.NO.

**N.G.M.COLLEGE (AUTONOMOUS) :: POLLACHI**

**END-OF-SEMESTER EXAMINATIONS : NOVEMBER – 2023**

**B.Sc. – COMPUTER TECHNOLOGY**

**MAXIMUM MARKS: 70**

**V SEMESTER**

**TIME : 3 HOURS**

**PART – III**

**INFORMATION SECURITY**

**SECTION – A**

**(10 X 1 = 10 MARKS)**

**ANSWER THE FOLLOWING QUESTIONS.**

**(K1)**

**MULTIPLE CHOICE QUESTIONS.**

1. \_\_\_\_ is the process of communicating confidential information in an unreadable format between legitimate users?
  - a) Cryptography
  - b) Symmetricity
  - c) Asymmetricity
  - d) All of the above
2. Which of the following is the structure of DES?
  - a) Feistel network
  - b) Luby rack off block cipher
  - c) Asymmetric cipher
  - d) Both a and b
3. A digital certificate system .....

  - a) uses third-party CAs to validate a user's identity.
  - b) uses digital signatures to validate a user's identity.
  - c) uses tokens to validate a user's identity.
  - d) are used primarily by individuals for personal correspondence.

4. Pretty good privacy (PGP) is used in \_\_\_\_\_
  - a) browser security
  - b) email security
  - c) FTP security
  - d) wifi security
5. \_\_\_\_\_ provides an isolated tunnel across a public network for sending and receiving data privately as if the computing devices weredirectly.
  - a) Visual Private Network.
  - b) Virtual Protocol Network
  - b) Virtual Public Network .
  - d) Virtual Private Network

**ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES.**

**(K2)**

6. Explain plain text.
7. Explain symmetric key cryptography
8. Explain Digital Certificate.
9. Describe the uses of PGP.
10. Explain firewall.

**(CONTD .... 2)**

**SECTION – B****(5 X 4 = 20 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.****(K3)**

11. a) Describe the Need for Security  
(OR)  
b) Express Plain Text and Cipher Text
12. a) Describe Symmetric Key Cryptography  
(OR)  
b) How does DES Work ?
13. a) Describe the Concept of Digital Certificate  
(OR)  
b) How does HTTPS work?
14. a) How does PGP Work ?  
(OR)  
b) List and explain the main components of Kerberos.
15. a) Describe the Types of Firewalls  
(OR)  
b) Describe Java Cryptography Architecture

**SECTION – C****(4 X 10 = 40 MARKS)****ANSWER ANY FOUR OUT OF SIX QUESTIONS****(16<sup>th</sup> QUESTION IS COMPULSORY AND ANSWER ANY THREE QUESTIONS)****(K4/K5)**

16. Discuss Transposition Techniques
17. Explain Substitution Techniques
18. Discuss RSA Algorithm.
19. Discuss PKIX Model
20. Discuss Security in GSM
21. Explain Virtual Private Networks (VPN)

\*\*\*\*\*