

Roll No.

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. CSE (Internet of Things and Cyber Security including Block Chain Technology) (Sem.–6)

NETWORK SECURITY & CRYPTOGRAPHY

Subject Code : BTCS701-18

M.Code : 93411

Date of Examination : 30-04-2025

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES:

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION - A

1. Write briefly :

- a. What is difference between computer security and network security?
- b. What is DoS attack?
- c. State quotient remainder theorem.
- d. Give example to show $(a + b) \bmod m = ((a \bmod m) + (b \bmod m)) \bmod m$.
- e. Mention the different key size used in AES.
- f. Give example of transposition ciphers.
- g. What is Kerberos?
- h. What is difference between hashing and encryption?
- i. What is PGP?
- j. How firewall works?

SECTION - B

2. Explain the CIA Triad. Why it is important for security?
3. State Fermat theorem. Find the result of $610 \bmod 11$ using the Fermat little theorem.
4. Explain the Elliptic curve Cryptography.
5. What is hashing? Explain MD5 message digest algorithm.
6. Why do use honeypots? Discuss the deployment of honeypots by taking firewall into consideration.

SECTION - C

7. What is asymmetric cryptography? Explain the RSA algorithm by showing the encryption and decryption of "HI" using the $P=53$ and $Q=59$.
8. What is access control? Discuss few principles of access control mechanism. Explain few methods of access control for security.
9. **Write a short note on :**
 - a. DDoS attacks
 - b. Key distribution techniques.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.