

**BTICS504N/ BTICS501**

B.Tech.(CSE-ICS)

V Semester Examination, December 2023

**Network Security and Cryptography**

Choice Based Credit System (CBCS)

**Time: 3 Hrs.****Maximum Marks: 60****Minimum Pass Marks: 24**

Note: (1) All questions carry equal marks, out of which part 'A' and 'B' carry 3 marks and part 'C' carries 6 marks.

- (2) From each question, part 'A' and 'B' are compulsory and part 'C' has internal choice.
- (3) Draw neat diagram, wherever necessary.
- (4) Assume suitable data wherever necessary.

**Q.1(A)** Write the need for Cyber Security. 03  
**(B)** Elaborate different threats in networks. 03  
**(C)** What do you mean by Strong Authentication? Explain its requirements. 06

**OR**

Describe the working of Honey pots.

**Q.2(A)** What role do proxy servers and anonymizers play in internet browsing? 03  
**(B)** Explain the concept of Key Range and Key Size. 03  
**(C)** Explain Password Cracking Techniques. 06

**OR**

How do substitution techniques alter the original message in cryptography?

**Q.3(A)** Why Block Ciphers technique is required? Explain. 03  
**(B)** Write a short note on Symmetric Key Cryptography. 03  
**(C)** Explain DES(Data Encryption Standard) algorithm. 06

**OR**

Explain IDEA(International Data Encryption Algorithm) algorithm.

**Q.4(A)** Why Asymmetric key Cryptography is required? 03  
**(B)** Write a short note on RSA algorithm. 03  
**(C)** Explain Diffie-Hellman Key Exchange with an example. 06

**OR**

Explain Digital Signature.

**Q.5(A)** Write Working of SSL protocol. 03  
**(B)** Why Password Authentication Token is required? Explain. 03  
**(C)** Explain Certificate based Authentication. 06

**OR**

What do you mean by Pretty Good Privacy? Explain with example.

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