



**K20U 0103**

Reg. No. : .....

Name : .....

**VI Semester B.Sc. Degree (CBCSS-Reg./Supple./Improv.)**

**Examination, April 2020**

**(2014 Admission Onwards)**

**CORE COURSE IN COMPUTER SCIENCE**

**6B16CSC:E06 : Information Security**

Time : 3 Hours

Max. Marks : 40

**PART – A**

1. a) An attack that threatens confidentiality of information is \_\_\_\_\_
- b) The process of converting cipher text to plain text is \_\_\_\_\_
- c) The art and science of creating secret code is \_\_\_\_\_
- d) An example for block cipher is \_\_\_\_\_
- e) Expand DES.
- f) Give an attack on RSA signature.
- g) RSA stands for \_\_\_\_\_
- h) Secret key encryption is \_\_\_\_\_ encryption. (8×0.5=4)

**PART – B**

Answer **any seven**.

2. Define integrity.
3. What are viruses ?
4. What are substitution ciphers ? Give an example.
5. What is a public key ?
6. Mention any two applications of steganography.
7. What are block ciphers ?

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8. What is message authentication ?
9. What is a brute force attack ?
10. What is Non-Repudiation ?
11. Give an overview of encryption and decryption with DES. **(7×2=14)**

PART – C

Answer **any four**.

12. Which are the keys used in public key cryptosystems ? How are they used ?
13. What are the security goals ?
14. Explain the permutation steps in DES.
15. Explain the properties of a block cipher.
16. Compare conventional signatures and digital signatures.
17. What is the need for keys in digital signatures ? **(4×3=12)**

PART – D

Answer **any two**.

18. Explain transposition ciphers.
19. Write notes on Security of DES.
20. Explain the applications of key cryptosystems.
21. Explain RSA Algorithm. **(2×5=10)**