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C14-CM-606/C14-IT-606

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BOARD DIPLOMA EXAMINATION, (C-14)

JUNE—2019

DCME—SIXTH SEMESTER EXAMINATION

CRYPTOGRAPHY AND NETWORK SECURITY

Time : 3 hours] [*Total Marks* : 80

PART—A

3 ×10=30

Instructions : (1) Answer **all** questions.

(2) Each question carries **three** marks.

(3) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. Define Cryptography.

2. List types of passive and active attacks.

3. What are the two basic functions used in encryption algorithm?

4. Define the concept of decryption.

5. Differentiate mono and poly alphabetic ciphers.

6. List the principle elements of a public key cryptography.

7. Define Digital Signature.

8. Define Logic Bomb.

9. Write about password management.

10. Write about the importance of firewall in networks.

PART—B

10×5=50

Instructions : (1) Answer *any* **five** questions.

(2) Each question carries **ten** marks.

(3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer

11. Explain the concept of security mechanism and its categories.

12. *a)* Write about crypto system and explain its components.

b) Raju meets Ramu and he says, FRPH WR HADP RQ WLPH(cipher text). If Raju uses Caesar cipher technique, what does he wants to convey?

13. Write about play fair cipher and its rules in construction of matrix and encryption process.

14. How does simple columnar transposition technique work? Assume some plain text and generate the corresponding cipher text using this technique.

15. Explain the concept of asymmetric key cryptography.

16. Write about the concept of digital signature and its properties.

17. Discuss about :

a) Intruders *b)* Intrusion detection *c)* Virus *d)* Trojan Horse *e)* E-mail virus.

18. Discuss about cyber crime and computer crime.

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