

Roll No.

Total Pages : 03

MCA/M-19

10515

INFORMATION SECURITY

MCA-14-45(I)

Time : Three Hours]

[Maximum Marks : 80

Note : Attempt *Five* questions in all. Q. No. 1 is compulsory.
Attempt *four* more questions selecting *one* question
from each Unit.

(Compulsory Question)

1. (a) What is Malicious Code ?
- (b) What are the threats to information security ?
- (c) Define hashing.
- (d) What do you understand by secret key cryptography ?
- (e) List out web security threats.
- (f) What is Spoofing ?
- (g) List the different types of virus.
- (h) Briefly explain Intrusion Detection System (IDS).

8×2=16

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P.T.O.

Unit I

2. List and explain the importance component of Information security. How attacks and threats influence information security ? 16
3. (a) What are the security issues in Wireless Network ?
How illegal and unethical behaviors are prevented ?
(b) What are weak/strong passwords ? How passwords are cracked ? 8+8=16

Unit II

4. What is symmetric and asymmetric data encryption ? State globally followed encryption standards. Write and explain international data encryption algorithm. 16
5. (a) Explain the potential applications of cryptography.
(b) What MAC algorithm states ? Discuss its use. 8+8=16

Unit III

6. (a) What is the difference between an SSL connection and an SSL session ?
(b) Draw IP security architecture. Explain all of its components. 8+8=16

7. What are the requirements of Kerberos ? Discuss X.509 authentication service.

16

Unit IV

8. (a) Discuss the principles for firewall designing.
(b) What is the mechanism to secure electronic mailing system ?
- 8+8=16
9. (a) In S/MIME, how does a receiver find out what cryptographic algorithm the sender has used when receives an S/MIME message ?
(b) Write a detailed note on virtual private networks.

8+8=16

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