M.C.A. First Semester (Third Year) (CGS)

15541 : System Administration & Security : 5 MCA 3

P. Pages : 2 | AU - 3172

Time : Three Hours | Max. Marks : 80

* 0 4 1 6 *

Notes : 1. All question carry equal marks.
2. Due credit will be given to neatness and adequate Dimensions.
3. Illustrate your answer necessary with the help of neat sketches.
4. Use of pen Blue/Black ink/refill only for writing book.

1. a) List and define categories of active and passive security attacks? 7

   b) Explain in brief the Network Security Model? 7

OR

2. a) Explain :- 6

   i) Authentication

   ii) Data confidentiality.

   b) What is RFC? Explain the function of 8

   i) IETF

   ii) IESG

3. a) Explain the structure and working of DES algorithm. 7

   b) Explain the concept of digital signature? 6

OR

4. a) Explain :- 8

   i) Cryptography

   ii) Cryptanalysis

   b) What is the role of Key Distribution Center? Explain it's working. 5

5. a) What is PGP? What are the principal services provided by PGP? 6

   b) What is Kerberos? State and explain the working of Kerberos. 7

OR

6. a) Explain the structure and function of X.509 authentication certificates. 7

   b) What is S/MIME? Explain the functionality of S/MIME. 6

7. a) What is IPsec? Explain it's architecture. 6

b) What is Web security? Describe the different types of threats on the web. 7

OR

8. a) Explain handshake protocol in SSL. Also explain it's action. 7

b) Explain the structure and working of IPv4. 6

9. a) What is SNMP? What are the seven message types used by SNMP? Explain it. 7

b) What is Proxy? Describe it's needs and services. 6

OR

10. a) Describe the architecture of SNMPv2. 7

b) What is the role of MIB in network management? 6

11. a) What is Virus? What are the ways of classifying viruses? Explain them in detail? 7

b) What is Firewall? Explain packet Filtering Firewall in detail? 7

OR

12. a) Describe the concept of 8

i) Intruders

ii) Worms

iii) Viruses

iv) Spyware

b) What is Intrusion detection? Explain various approaches to intrusion detection. 6

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