

M.C.A. IIIrd Year First Semester (CGS)
15541 : System Administration & Security : 5 MCA 3

P. Pages : 2

Time : Three Hours



AV - 3287

Max. Marks : 80

- Notes :
1. Due credit will be given to neatness and adequate dimensions.
 2. Assume suitable data wherever necessary.
 3. Illustrate your answer necessary with the help of neat sketches.
 4. Use of pen Blue/Black ink/refill only for writing the answer book.

1. a) Explain in brief: 7
- i) Access control
 - ii) Denial of service
 - iii) Availability
 - iv) Data Integrity
 - v) Masquerade
 - vi) Data confidentiality
 - vii) Non repudiation

- b) Explain in detail model for network security. 7

OR

2. a) Explain security mechanisms in detail. 6
- b) State and explain various types of attacks in detail. 8
3. a) State and explain the structure and working of Diffie – Hellman key exchange algorithm. 6
- b) What is KDC? Explain the role and working of KDC. 7

OR

4. a) Describe the model for public key cryptography. 7
- b) Explain the structure and working of RC4 algorithm. 6
5. a) What is Kerberos? What are advantages of Kerberos 5 over version 4? 8
- b) Explain the structure of X.509 Authentication certificates. 5

OR

6. a) Explain the meaning and working of PGP in detail. 7
- b) What is MIME? Explain functions of S/MIME. 6

7. a) Explain IPSec architecture along with its applications. 6
b) Describe the role of handshaking protocol in SSL and explain actions in detail. 7

OR

8. a) What is web security? Explain its need and requirements. 7
b) Explain the structure and working of IPv4. 6
9. a) Describe view based access control in detail. 7
b) Distinguish between SMI and MIB. 6

OR

10. a) Explain the basic concept of SNMP along with SNMP protocol architecture. 7
b) Explain USM message processing mechanism. 6
11. a) Describe the meaning of virus along with its parts. Explain the phases of operation of a virus. 8
b) What is intrusion detection? Explain various approaches to intrusion detection. 6

OR

12. a) What is firewall? State and explain various types of firewall. 8
b) What are the various vulnerabilities of password? 6
