

B.E.(Information Technology) Semester Seventh (C.B.S.)
Computer System Security

P. Pages : 2

Time : Three Hours



KNT/KW/16/7499

Max. Marks : 80

- Notes :
1. All questions carry marks as indicated.
 2. Solve Question 1 OR Questions No. 2.
 3. Solve Question 3 OR Questions No. 4.
 4. Solve Question 5 OR Questions No. 6.
 5. Solve Question 7 OR Questions No. 8.
 6. Solve Question 9 OR Questions No. 10.
 7. Solve Question 11 OR Questions No. 12.
 8. Due credit will be given to neatness and adequate dimensions.
 9. Assume suitable data whenever necessary.

1. a) Explain S Box and P Box generation in DES Algorithm. **5**
b) Distinguish Between monoalphabetic cipher & polyalphabetic cipher. **3**
c) Explain Caesar Cipher technique with example. **5**

OR

2. a) Explain play fair substitution technique convert following text using "Monarchy" as a keyword Plain Text :- It was disclosed yesterday. **8**
b) Write short note on Rotor machine. **5**
3. a) Explain link Encryption and End to End Encryption. **7**
b) Write short note on Pseudorandom number generator. **6**

OR

4. a) Explain KDC with suitable Diagrams. **7**
b) Explain the characteristics of Advance symmetric Block cipher. **6**
5. Explain RSA algorithm in Detail. Perform Encryption and Decryption using RSA algorithm for the following. $p = 3$; $q = 11$; $d = 7$; $N = 5$. **14**

OR

6. a) What is an elliptic curve. **7**
b) Identify the application area of MD5 algorithm. **7**

7. a) Explain SHA Algorithm. with neat sketches. 6
b) Explain the concepts of Digital Signature. 7

OR

8. a) What are the uses of Kerberos. Explain Kerberos version V4. 6
b) What is the purpose of X.509 authentication service? Describe the format of X.509 certificate and certificate Revocation. 7

9. a) Explain PGP in Detail. 6
b) Discuss about ESP Header of IPSEC in Both the modes. 7

OR

10. a) Explain S/ MIME function in Details. 6
b) What are the function area of IP- Security. 7

11. a) Explain the Honey – Pot system of Intrusion. 7
b) Explain Trusted system in Details. 7

OR

12. a) What is viruses and worms? Describe the virus spreading mechanism. 7
b) Write short note on firewall. 7
