

Total No of Questions: [12]

SEAT NO. :

[Total No. of Pages : 02]

B.E. 2008 Course (Information Security)

(Elective - IV) (Semester - II)

Time: 3 Hours

Max. Marks : 100

Instructions to the candidates:

- 1) *Answers to the two sections should be written in separate answer books.*
- 2) *Answer any three questions from each section.*
- 3) *Neat diagrams must be drawn wherever necessary.*
- 4) *Figures to the right side indicate full marks.*
- 5) *Assume Suitable data if necessary*

SECTION I

- Q1) a) Explain the different attributes of Network Security. Discuss the needs of Network security in Computer Technology. [10]
- b) What is Classical Cryptography? Explain in short. [08]
- OR
- Q2) a) What is Mechanism in network security? Explain any one mechanism in detail. [10]
- b) Explain Network Security lifecycle in detail [08]
- Q3) a) Discuss DES algorithm with suitable formulae. [08]
- b) What are the problems of Cryptography? Enlist and discuss in short. [08]
- OR
- Q4) a) Explain different block cipher mode of operation with suitable examples.
- b) Discuss RC5 algorithm in detail.
- Q5) a) Differentiate public and private key Cryptography [08]
- b) What is Man-in-Middle attack? Explain in detail with suitable example. [08]
- OR
- Q.6) a) What is public key Cryptography? Explain RSA algorithm in detail. [08]
- b) Explain Diffie-Hellman algorithm in Detail. [08]

SECTION II

- Q7) a) What is MAC? Explain it with suitable example. [10]
- b) What is Digital Signature? Discuss any one algorithm of Digital Signature. [08]
- OR
- Q8) a) Explain DSA algorithm in detail. [08]
- b) What is Kerberos? Discuss the working principles of Kerberos with suitable diagram. [10]
- Q9) a) What is Intrusion Detection System? Explain IDS mechanism in detail. [08]

b) Explain Principles of Firewall Design. [08]

OR

Q10) a) What is IPSEC? Discuss it in detail. [08]

b) Differentiate IDS and IPS with suitable examples. [08]

Q11) a) What is SET? Discuss it SET with suitable example. [08]

b) Explain working principles of PGP in detail. [08]

OR

Q.12) Write short notes on followings.

a) Strengths of Security services. [04]

b) Smart Cards [04]

c) S/MIME, [04]

d) PEM [04]