Total No. of Questions : 8]

SEAT No. :

P4893

[Total No. of Pages : 2

[5155]-19
M.E. (Computer Engineering)
INFORMATION AND NETWORK SECURITY
(Semester -I) (2008 Pattern) (Elective -II)

Time : 3 Hours] *[Max. Marks : 100*

Instructions to candidates:

1) ***Answer any three questions from each section.***
2) ***Answer to the two sections should be written in separate books.***
3) ***Neat diagrams must be drawn wherever necessary.***
4) ***Figures to the right indicate full marks.***
5) ***Use of logarithmic tables, slide rule, mollier charts, electronic pocket calculator and steam table is allowed.***
6) ***Assume suitable data, if necessary.***

SECTION -I

Q1) a) What is information security policy? Describe various steps necessary for creating information security policy. **[7]**

b) Explain main provisions in cyber laws with respect to information and network security. **[7]**

c) Describe various threat scenarios. **[4]**

Q2) a) Enlist and explain various requirements a public key cryptosystems need to fulfil to be a secure algorithm? **[8]**

b) Describe DES Design criteria and explain purpose of the S-boxes in DES? **[8]**

Q3) a) What is access control? Explain with suitable example logical and physical access control. **[8]**

b) Explain in detail different protections provided by secure socket layer? **[8]**

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Q4) Write short notes on (any three) **[16]**

a) Issues in multi-level secure systems

b) Fragmentation vulnerabilities

c) Encryption principals

d) Privacy and data protection

SECTION -II

Q5) a) Enlist and explain various Routing algorithm vulnerabilities. **[10]**

b) Describe different ways in which password transmitted over a telnet connection can be captured. Discuss secure alternatives. **[8]**

Q6) a) What is network partitioning? Explain with respect to firewalls. **[8]**

b) Explain the different between a packet-filtering router and a stateful inspection firewall. **[8]**

Q7) a) What are the essential properties and requirements for a digital signature? **[8]**

b) Describe different methods and procedures for security in wireless networks. **[8]**

Q8) Write short notes on (any three) **[16]**

a) Discrete logarithm problem

b) Session key management

c) Secure routing interoperability

d) Time stamping and reliable ordering of events

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