

B.E. TI NOV-Dec-2011  
Sem-I 2008 course

Total No. of Questions : 12]

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[4064] - 602

**B.E. (Information Technology)**  
**INFORMATION ASSURANCE AND SECURITY**  
**(2008 Course) (Sem. - I) (414441)**

Time : 3 Hours]

[Max. Marks : 100

Instructions to the candidates:

- 1) Answers 3 questions from Section - I and 3 questions from Section - II.
- 2) Answers to the two sections should be written in separate answer books.
- 3) Neat diagrams must be drawn wherever necessary.
- 4) Figures to the right indicate full marks.
- 5) Assume suitable data, if necessary.

**SECTION - I**

- Q1) a) Categories the different attacks. Illustrate, how passive attacks leads to business loss. [9]
- b) Illustrate how to share and split the secret and its significance in some application. [9]

OR

- Q2) a) What is the significance of Extended Euclidian algorithm with reference to RSA Algorithm. Illustrate. [9]
- b) Draw AES block diagram and explain the steps in general. [9]
- Q3) a) State different modes of operation. Compare these modes. [8]
- b) How to solve the problem of Non-repudiation. Illustrate that availability of information assets may be hampered because of reliability or security threat. [8]

OR

- Q4) a) How is the IPSEC helpful to implement Virtual Private Network? [8]
- b) List and state any tools used for information security. [8]

**P.T.O.**

- Q5) a) State the purpose of Needham Schroeder Symmetric Protocol & public key Protocol. Moreover state the purpose of Radius Server & Kerberos Server. [8]
- b) Illustrate the Diffie Hellman Key Exchange Protocol [8]

OR

- Q6) a) How IT Law 2000 describes digital signature. [8]
- b) Encryption does not solve all the security problems: Justify. [8]

## SECTION - II

- Q7) a) List and state the channels of Key distribution in Symmetric and Asymmetric Key systems. [8]
- b) State different Identity ways and also state the attacks on Identity. [8]

OR

- Q8) a) Explain SSL protocol interaction sequence diagram between client and server. [8]
- b) Explain different IDS methods with one example each. [8]

- Q9) Write short notes on : [18]
- a) Industrial Espionage.
- b) Phishing Attack.
- c) Information Security Policy.

OR

- Q10) Write short notes on : [18]
- a) Cyber Terrorism.
- b) Security by obscurity.
- c) IT law awareness.



- Q11*)a) You know the 7 OSI layers. What are the layer wise security concerns? [8]
- b) State the Chinese remainder theorem with example. [8]

OR.

- Q12*)a) Using Euclidean algorithm calculate gcd (16,20) and gcd (50,60). [8]
- b) Compare Linear Cryptanalysis and Differential Cryptanalysis. [8]

