

**R09**

**Code No: C8204**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD  
M.TECH I SEMESTER EXAMINATIONS, APRIL/MAY-2012  
NETWORK SECURITY-1  
(COMPUTER NETWORKS)**

**Time: 3hours**

**Max.Marks:60**

**Answer any five questions  
All questions carry equal marks**

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- 1.a) Discuss security services, attacks and mechanisms.  
b) Explain chinese remainder theorem.
- 2.a) Explain AES Encryption and Decryption algorithm.  
b) Briefly explain various techniques used for distribution of public keys.
- 3.a) Describe various modes of operation of Block cipher.  
b) Explain Diffe-Hellman key exchange algorithm.
4. What is Hash function? Explain secure Hash algorithm in detail.
- 5.a) Distinguish between Kerberos version-4 and version 5.  
b) Give the format of X.509 scheme.
- 6.a) What is SNMP? Compare SNMPV 1 and SNMPV 3.  
b) List out OS security functions.
7. Explain the following terms:  
i) In complete Mediation  
ii) Race condition.  
iii) Morris worm
8. Explain the Design Principles, Characteristics and configurations of Firewalls.

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