

R09

Code No: D6108, D3808, D7008, D5510, D6508

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

M.Tech II - Semester Examinations, March/April 2011

NETWORK SECURITY AND CRYPTOGRAPHY

(COMMON TO COMMUNICATION SYSTEMS, DIGITAL ELECTRONICS & COMMUNICATION SYSTEMS, ELECTRONICS & COMMUNICATION, EMBEDDED SYSTEMS, WIRELESS & MOBILE COMMUNICATIONS)

Time: 3hours

Max. Marks: 60

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

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1. a. Distinguish between cryptography and steganography.
b. Explain the security services?
c. Describe the Internet work security model. [12]
2. Explain the working of RC5 algorithm. [12]
3. a. Explain the characteristics of advanced symmetric block ciphers.
b. Discuss the block cipher modes of operation. [12]
4. a. Explain the different approaches of key management in public key cryptography.
b. How the keys are exchanged using Diffie-Hellman key exchange algorithm? Explain. [12]
5. a. Discuss about discrete logarithms.
b. Explain the security of hash functions and MACs. [12]
6. List and explain the sequence of steps followed in RIPEMD – 160 algorithm. [12]
7. a. Explain the operation of Kerberos.
b. Explain S/MIME. [12]
8. Write short notes on:
a. Secure electronic transaction (SET)
b. Viruses and related threats [12]
