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**Manipal Institute of Technology**  
(Constituent Institute of MAHE – Deemed University)  
Manipal – 576 104



**SEVENTH SEMESTER B.E. (IT) DEGREE END SEMESTER MAKEUP EXAMINATION – JAN, 2007**  
**SUBJECT: E-COMMERCE & N/W SECURITY– ICT 407.6**  
**(REVISED CREDIT SYSTEM)**

**TIME: 3 HOURS**

**MAX.MARKS: 50**

**Instructions to Candidates:**

- Answer any 5 FULL questions.
- All questions carry equal marks.
- Write neat diagrams wherever necessary

- 1A. With suitable packet formats explain ESP encryption and authentication in both transport and tunnel mode.
- 1B. What is passive attack? Explain two types of passive attack in detail.
- 1C. Write a short note on Trojan horse.

(5+3+2)

- 2A. With an example explain data compression using ZIP algorithm.
- 2B. Explain any three cryptanalytic attacks on encrypted messages.
- 2C. Write a short note on RC5 algorithm.

(5+3+2)

- 3A. Explain the differences between Kerberos version 4 and version 5 with respect to the environmental shortcomings.
- 3B. Explain the man-in-middle attack with an example.
- 3C. In a public key system using RSA, intercept the cipher text  $C = 10$  sent to a user whose public key is  $e = 5$ ,  $n = 35$ . What is the plaintext  $M$ ?  
(5+3+2)
- 4A. Explain Phase 1 of handshake protocol in SSL.
- 4B. Briefly explain MIME transfer encodings.
- 4C. Briefly explain the following:  
(i) PRE-AUTHENT                      (ii) PROXIABLE  
(5+3+2)
- 5A. Briefly explain the packet filter router. What are its advantages and disadvantages?
- 5B. What is SCM? Write the characteristics of SCM.
- 5C. Write a short notes on Hypertext documents.  
(5+3+2)
- 6A. Explain the online third party process in detail with a neat block diagram.
- 6B. Briefly describe about the different types of diffie-hellman key exchange method used in SSL handshake protocol.
- 6C. Briefly explain about the following e-cash related terms:  
(i) blinding                              (ii) double spending  
(5+3+2)

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