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Question Paper Code : 51158

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2015.

Sixth/Eighth Semester

Electronic Communication and Engineering

CS 1028 A — NETWORK SECURITY

(Regulation 2008)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define cryptography.
2. What is digital Signatures?
3. What is MAC?
4. What is a public key certificate?
5. Define Kerberos.
6. What are the applications of IPSec?
7. Differentiate application level gateway and network level gateways.
8. What are honeypots?
9. What are the active attack patterns?
10. What is WEP encryption

PART B — (5 × 16 = 80 marks)

11. (a) Explain the features of block Ciphers and data encryption standards in detail. (6+10)

Or

- (b) Explain how symmetric encryption provides confidentiality with an example. (16)

12. (a) (i) Define hash function. Explain the properties of hash functions. (8)
(ii) Describe Diffie - Hellman key exchange algorithm with an example. (8)

Or

- (b) (i) Discuss the digital signature standard and its algorithm with example. (8)
(ii) Explain RSA public key cryptosystem with an example. (8)
13. (a) Discuss about Kerberos X. 509 architecture and authentication services in detail. (16)

Or

- (b) (i) Describe IP security architecture in detail. (8)
(ii) Explain E-Mail application and MIME. (8)
14. (a) Explain various password management mechanisms with examples. (16)

Or

- (b) Explain viruses and worms and the threats posed by them. (8+8)
15. (a) Explain the wireless LAN security factors and security mechanisms. (16)

Or

- (b) Discuss the issues and solutions in wireless security. (16)