

**D 70161**

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**SEVENTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION, NOVEMBER 2014**

**CS/IT/PTCS 09 704—CRYPTOGRAPHY AND NETWORK SECURITY**

Time : Three Hours

Maximum : 70 Marks

**Part A**

*Answer all questions.*

- I. (a) What are the key principles of security ?
- (b) What is a trapdoor one way function ?
- (c) What is a one way function ?
- (d) What are the security features in Windows 2000 ?
- (e) Define VPN.

(5 × 2 = 10 marks)

**Part B**

*Answer any four questions.*

- II. (a) Briefly explain the categories of Security mechanisms.
- (b) List and describe security goals.
- (c) Explain Triple DES with neat diagram.
- (d) Explain Hash Functions
- (e) Write and explain the Digital Signature Algorithm.
- (f) Explain firewall configuration.

(4 × 5 = 20 marks)

**Part C**

*Answer section (a) or (b) of each questions.*

- III. (a) Write short notes on Substitution and Transposition cipher.

*Or*

- (b) Briefly explain the categories of Security mechanisms.

- IV. (a) Briefly describe about the Strength of DES ?

*Or*

- (b) Explain Block Cipher modes of Operation in detail.

**Turn over**

V. (a) Explain in detail about the IP Security Architecture.

*Or*

(b) Define Kerberos Version 5.

VI. (a) Define Virtual private network and explain its protocols.

*Or*

(b) Explain Wireless Application Protocol Security.

(4 × 10 = 40 marks)