

**B. Tech. DEGREE EXAMINATION, MAY - 2015**

**(Examination at the end of Final Year)**

**COMPUTER SCIENCE**

**Paper - V : Cryptography and Network Security**

**Time : 3 Hours**

**Maximum Marks : 75**

**Answer question No. 1 compulsory**

**(15)**

**Answer ONE question from each unit**

**(4 x 15 = 60)**

**1) Write a short notes on :**

- a) Define cryptography.
- b) Define fermat's theorem.
- c) Define virus.
- d) What is the need of Authentication Header.
- e) Define trusted system.

**Unit - I**

- 2) a) Explain steganography.**  
b) Explain block cipher modes of operation.

**OR**

- a) Explain different transposition techniques.
- b) Explain strength of DES.

**Unit – II**

**3) Explain the Secure Hash Algorithm with a neat block diagram.**

**OR**

- a) Explain Authentication requirements and functions.
- b) Explain Euclid algorithm.

**Unit – III**

- 4) a) Explain Authentication Header.  
b) Explain Applications of IP Security.

OR

- a) Explain X.509 authentication service.  
b) Discuss virus counter measures.

**Unit – IV**

- 5) a) Explain secure electronic Transaction.  
b) Give the Principle of Firewall Design.

OR

- a) Discuss Password Management  
b) Explain web security considerations.

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