

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- Sep 2018

B.Tech(ECE/CSE/IT/BI/BT) VII Semester

COURSE CODE: 10B1WCI735

MAX. MARKS: 15

COURSE NAME: Network Security and Cryptography Techniques

MAX. TIME: 1 HR

COURSE CREDITS: 3

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

Q.1. [5 Marks. Each part is one mark]

- a) Define the avalanche effect?
- b) List design principles of block symmetric ciphers?
- c) List modes of operation of block symmetric ciphers and explain the limitations of ECB?
- d) Describe the cryptanalysis of monoalphabetic cipher.
- e) Compare the brute force attack complexity of 2-DES and 3-DES.

Q.2. [2.5 marks] Describe the security services as given in ITU-T-X800.

Q.3. [2.5 marks] Describe the cryptanalytic attacks based on the amount of information collected by the attacker.

Q.4. [2.5 marks] Discuss the algorithm for round operation in AES.

Q.5. [2.5 marks] Explain the key scheduling algorithm used in DES.