JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATIONS-2022

B.Tech-III Semester (CS/IT)

COURSE CODE: 19B1WCI632

COURSE NAME: Information Security

COURSE CREDITS: 2

MAX. MARKS: 15

MAX. TIME: 1 Hour

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means. Marks are indicated against each question in square brackets.

Q1. What will be the ciphered text if the string "FOUNDRY" is given as input to the code of Vigenere Cipher with keyword as "HELLO? **2 Marks**

Q2. Suppose that everyone in a group of N people wants to communicate secretly with the N-1 others using symmetric key cryptographic system. The communication between any two persons should not be decodable by the others in the group. The number of keys required in the system as a whole to satisfy the confidentiality requirement is **2 Marks**

a) 2N

b) N(N-1)

c) N(N-1)/2

d) (N-1)

Q3. Discuss the ethical Concepts in information security and the prevention to illegal and unethical behaviors? **2 Marks**

Q4. Find out the plain text corresponding to cipher text "PROTO" if Vigenere Cipher is used with keyword as "HELLO"? **2 Marks**

Q5. Distinguish between DoS and DDoS. **2 Marks**

Q6. If the plain text is "BPKYFS" with keyword as "SECRET" (assuming j is combined with i). findout the cipher text using Playfair Cipher Algorithm **2 Marks**

Q7. Use the Caesar cipher to encrypt and decrypt the message "CLASSMATE," and the key (shift) value of this message is 3. **3 Marks**