

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2025

B.Tech-I Semester (CSE/IT/ECE/CE/BT/Bi)

COURSE CODE (CREDITS): 18B1WCI734 (2)

MAX. MARKS: 15

COURSE NAME: Cryptography and Network Security

COURSE INSTRUCTORS: Dr. Ramesh Narwal

MAX. TIME: 1 Hour

Note: (a) All questions are compulsory.

(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

Q.No	Question	CO	Marks
Q1	A message was encrypted using a rail fence cipher (depth = 3). The ciphertext is: WECRLTEERDSOEFEAOCAIVDEN Find the plaintext.	CO2	3
Q2	Compare and contrast S/MIME and TLS protocols in terms of their security features and use cases.	CO3	3
Q3.	A ciphertext is obtained using a Caesar cipher with an unknown shift: WKH HDJOH KDV ODQGHG Determine the plaintext message by trying possible shifts.	CO2	3
Q4.	Using a monoalphabetic substitution where the mapping is: Plain: ABCDEFGHIJKLMNOPQRSTUVWXYZ Cipher: QWERTYUIOPASDEFGHJKLZXCVBNM The ciphertext is: ITSSG V GKSR Find the plaintext.	CO2	3
Q5	Describe the working principle of Secure Socket Layer (SSL) and how it ensures confidentiality and integrity.	CO1	3