

B.Tech (Computer Engg.) 8th Semester, I sessional Test- 2022

Paper code: CEN-805

Network Security

Max. Time: 1 Hr.

Note: Attempt all questions, Assume suitable missing data, if any.

Max. Marks:15

Q1. Find the value of $24^{-1} \bmod 180$ (multiplicative inverse) using extended Euclidean algorithm.

Q2. Use a brute-force attack to decipher the following message enciphered by Alice using an additive cipher. Suppose that Alice always uses a key that is close to her birthday, which is on the 13th of the month.

NCJAEZRCLASJLYODEPRLYZRCLASJLCPEHZDZTOPDZQLNZTY

Q3. Find the value of x for the following sets of congruence using the Chinese remainder Theorem.

$$X \equiv 6 \pmod{11}$$

$$X \equiv 13 \pmod{16}$$

$$X \equiv 9 \pmod{21}$$

$$X \equiv 19 \pmod{25}$$