

**KLS Gogte Institute of Technology, Belagavi**  
**Department of Computer Science and Engineering**

**Academic Year: 2020-21**  
**Semester: VI (PE)**

**Max. Marks: 25**

**Subject: Information and Network security (18CS652)**  
**Duration: 1 Hr 15 Mins Date: 2/6/2021**

**NOTE: ANSWER ANY FIVE QUESTIONS (5\*5=25)**

**DRAW DIAGRAMS WHEREVER NECESSARY**

1. Apply Playfair Cipher to encrypt and decrypt the message “**BREAK THE COVID CHAIN**” using “**STAYHOMESTAYSAFE**” as key. [L3,CO1,PO1]
2. Apply Hill Cipher to get the plain text from “ **CEMTQIVQ**” using key [L3, CO1, PO1]
3. Describe the **Feistel** Encryption process. [L2,CO1,PO1]
4. Construct the public key cryptosystem model for **sender C** and **receiver D** to provide **authentication** and **secrecy**. [L3, CO2, PO1]
5. Apply double transposition technique to encrypt the message “**HIDE THE GOLD IN THE TREE STUMP**” using “**3 1 2 5 6 7 4**” as key. [L3,CO1,PO1]
6. Explain the key ingredients of public-key encryption. [L2,CO2,PO1]
7. Explain the possible approaches to attack the RSA algorithm. [L2,CO3,PO1]