

Code No: 157CR

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech IV Year I Semester Examinations, February/March - 2022****NETWORK SECURITY AND CRYPTOGRAPHY****(Electronics and Communication Engineering)****Time: 3 Hours****Max. Marks: 75****Answer any Five Questions  
All Questions Carry Equal Marks**

---

- 1.a) Write a detailed note on the Conventional Encryption model with an example.
- b) Justify how Steganography improves Data Security with an example. [8+7]
2. Demonstrate the working of a Transposition Technique for encryption with an example. [15]
3. Explain the implementation of Triple DES with Two Keys with a neat diagram. [15]
- 4.a) Illustrate two methods for Traffic Confidentiality with neat diagrams.
- b) Explain briefly about Blowfish Algorithm. [8+7]
- 5.a) Using Fermat's theorem, find  $3^{201} \pmod{11}$ .
- b) Use Euler's Theorem to find a number  $x$  between 0 and 28 with  $x^{85}$  congruent to 6 modulo 35. [8+7]
- 6.a) Write a detailed note on the Chinese Remainder Theorem.
- b) Explain briefly the Discrete Logarithms. [8+7]
- 7.a) Write a detailed note on Kerberos.
- b) Explain in detail about Digital Signature Standards. [8+7]
8. Describe in detail the Encapsulating Security Payload with neat diagrams. [15]

---ooOoo---