

Total No. of Questions : 4]

SEAT No. :

PD129

[Total No. of Pages : 1

[6410]-451

**T.E. (E & TC) (Insem)
NETWORK SECURITY**

(2019 Pattern) (Semester-II) (Elective-II) (304195-E)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) *Answer any two questions out of Q.1 or Q.2, Q.3 or Q.4.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate marks.*
- 4) *Assume suitable data if necessary.*

- Q1)** a) Draw and explain network security model in detail. [6]
b) What are different types of security attacks on the network? Explain release of message contents and traffic analysis attack. [5]
c) Explain CIA principle of network security in detail. [4]

OR

- Q2)** a) List the various security services? Explain any 3 types of security services. [6]
b) What is passive attack? Explain masquerade and fabrication attack in detail. [5]
c) What are the security approaches used in network security? [4]

- Q3)** a) Using Vernam Cipher encrypt the plaintext. "ABORT THE MISSION" using the key: "TWO PM". [6]
b) Using double Row transposition technique of encryption, encrypt the plaintext: "attack postponed until two am" using the key: 4312567. [5]
c) Write a short note on stenography. [4]

OR

- Q4)** a) For the plaintext: "REVERT" and key is $k = \begin{bmatrix} 9 & 4 \\ 5 & 7 \end{bmatrix}$. Generate ciphertext using Hill Cipher. [6]
b) Encipher the message. "meet me after the toga party" with a rail fence of depth 3. [5]
c) Differentiate substitution and transposition techniques of encryption. [4]

