

Total No. of Questions : 6]

SEAT No. :

**PB111**

[Total No. of Pages : 2

**[6269]-325**

**T.E. (AI & DS) (Insem)  
CYBER SECURITY**

**(2019 Pattern) (Semester - II) (317530)**

*Time : 1 Hour]*

*[Max. Marks : 30]*

*Instructions to the candidates:*

- 1) Solve Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figure to the right indicates full marks.
- 4) Assume suitable data if necessary.

**Q1) a) Draw and explain operational security model for network security. [5]**

**b) Explain passive and active attack. [5]**

**OR**

**Q2) a) Write difference between security and privacy. [5]**

**b) Define the following term with example. [5]**

- i) Symmetry
- ii) Asymmetry

**Q3) a) What are the different threats and vulnerabilities in case of cyber security? [5]**

**b) List and explain various elements of information security. [5]**

**OR**

**Q4) a) Explain DES Algorithm. [5]**

**b) Explain One Time Pad with example. [5]**

**Q5) a) Difference between AES and DES. [5]**

**b) What is block cipher? Explain counter mode of block cipher. [5]**

**OR**

**P.T.O.**

**Q6) a) Use the transposition cipher to encrypt the message “GEEKS FOR GEEKS” use key “HACK”. [5]**

**b) Explain the following terms. [5]**

- i) Ciphertext
- ii) Cryptology
- iii) Crypto system
- iv) Steganography
- v) Plaintext

\* \* \*