

Total No. of Questions : 6]

SEAT No. :

**PB111**

**[6269]-325**

[Total No. of Pages : 2

**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

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