

Total No. of Questions : 8]

SEAT No. :

**PB4009**

**[6262]-362**

[Total No. of Pages : 2

**T.E. (Honors in Cyber Security)**  
**INFORMATION AND CYBER SECURITY**  
**(2019 Pattern) (Semester - I) (310401)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) Solve Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data, if necessary.

**Q1) a)** What is Message Digest? Explain in detail MD5 algorithm. Applications of MD5. [9]

b) Discuss Diffie-Hellman key exchange algorithm with example. [8]

OR

**Q2) a)** Explain the steps for creating Digital Signature. [9]

b) Discuss EL-Gamal arithmetic algorithm with example. [8]

**Q3) a)** Explain risk identification, risk Assessment, risk control strategies. [9]

b) Explain the Laws and Ethics in Information Security. [8]

OR

**Q4) a)** Explain with suitable example. [9]

i) Crimes against individuals

ii) Crimes against organizations

iii) Crimes against society

b) Define cyber-crime. Explain any three categories of cyber-crime. [8]

**Q5) a)** Discuss working of PKI in detail. [9]

b) Explain the X.509 Certificate. [9]

OR

**P.T.O.**

- Q6)** a) What is Firewall? What are its types and list out its various functionalities. [9]
- b) Explain the SSL web security in detail. [9]

- Q7)** a) Explain intrusion detection system & its types. [9]
- b) Explain in detail SQL injection attack. [9]

OR

- Q8)** a) What is Virus? What are the types of virus? [9]
- b) Discuss buffer overflow, spyware, adware in detail. [9]

