

Total No. of Questions : 6]

SEAT No. :

P5780

[Total No. of Pages : 1

**B.E./Insem./Oct.-594**  
**B.E.(Information Technology)**  
**INFORMATION AND CYBER SECURITY**  
**(2015 Pattern) (Semester - I)**

*Time : 1 Hour]*

*[Max. Marks : 30*

*Instructions to the candidates:*

- 1) *Answer Q1 or Q2, Q3 or Q4, Q5 or Q6.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right side indicate full marks.*
- 4) *Assume suitable data, if necessary.*

- Q1)** a) Differentiate between passive and Active Attack? [5]  
b) Explain different Goals of Security? [5]

OR

- Q2)** a) Explain with diagram security Architecture and Operational Models. [5]  
b) What is IDS (Intrusion Detection System)? Explain Function and types of IDS. [5]

- Q3)** a) Explain with diagram DES Encryption Algorithm. Explain Advantages and Drawbacks of DES. [5]  
b) Perform Encryption and Decryption using RSA algorithm for following values  $p=17, q=11, e=7, M=2$ . [5]

OR

- Q4)** a) Draw AES block diagram and state the general steps in detail. [5]  
b) Explain Diffie-Hellman key exchange algorithm with example. [5]

- Q5)** a) Explain with diagram functioning of SHA-1 Algorithm. [5]  
b) Describe briefly how IPSec Mechanism works and enlist its applications? Distinguish between tunnel and transport mode of IPSec. [5]

OR

- Q6)** a) Explain with diagram kerberos v4 authentication protocol. [5]  
b) Explain SSL handshake and SSL record protocols with diagram. [5]

