

Total No. of Questions : 6]  
**P613**

SEAT No. :   
[Total No. of Pages : 2

**BE/Insem/APR - 246**  
**B.E. (Computer Engineering)**  
**INFORMATION AND CYBER SECURITY**  
**(2015 Pattern) (Semester - II)**

*Time : 1 Hour]*

*[Max. Marks : 30*

*Instructions to the candidates :*

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

- Q1)** a) Explain Operational Security Model for Network Security. **[5]**  
b) How Information Security attacks are classified? Give example for each. **[5]**

OR

- Q2)** a) What are different security policies? Explain. **[5]**  
b) List the differences between Security & Privacy. **[5]**
- Q3)** a) Use PlayFair Cipher to encrypt the message "This is a columnar transposition". Use key - APPLE. **[5]**  
b) Explain following algorithm modes **[5]**  
i) ECB  
ii) OFB

OR

- Q4)** a) Explain the operation of DES algorithm in detail. **[5]**  
b) Explain Monoalphabetic & Polyalphabetic ciphers with appropriate examples. **[5]**

**P.T.O.**

**Q5)** a) Find the key exchanged between Alok and Bobby considering following data.

i)  $n = 11$

ii)  $g = 5$

iii)  $X = 2, Y = 3$

Find value of A, B and secret key K.

[5]

b) What is Kerberos? Explain operation in detail.

[5]

OR

**Q6)** a) Given two Prime Numbers  $P = 17$  &  $Q = 29$  find out N, E, & D in an RSA encryption process.

[5]

b) Explain in details the need & implementation of one way hash function (MD5).

[5]

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