

Total No. of Questions : 8]

SEAT No. :

PE-2567

[Total No. of Pages : 2

[65831-97

T.E. (Electronics & Telecommunication Engineering)

NETWORK SECURITY

(2019 Pattern) (Semester - VI) (Elective - II) (304195)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) *Answer Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicates full marks.*
- 4) *Use of Calculator is allowed.*
- 5) *Assume Suitable data if necessary.*

Q1) a) Describe the advantages and disadvantages of symmetric and asymmetric key cryptography. Compare them on any two parameters [9]

b) Discuss the difference between differential and linear cryptanalysis [7]

OR

Q2) a) Which basic steps are performed in one round of operation in DES? Explain in detail. [9]

b) Discuss the background of RC4 and its initialization of S processes and stream generation [7]

Q3) a) What are biometric authentication techniques? Explain its importance in today's digital world [6]

b) What types of attacks are addressed by message authentication? [6]

c) What are the important aspect that establish trust in digital signature [6]

OR

Q4) a) How the Authentication Applications such as Kerberos work? Explain in detail. [6]

b) What changes in HMAC are required in order to replace one underlying hash function with another? [6]

c) Write short note : Knapsack algorithm [6]

P.T.O.

- Q5)** a) Explain in detail PGP Pretty Good Privacy concept and services provided by PGP [6]
b) What is R64 conversion? Why is R64 conversion useful for an e-mail application [6]
c) What is IP security overview, explain IP Security architecture [6]

OR

- Q6)** a) Write short note on Encapsulating Security payload [6]
b) Describe Key management use in email security [6]
c) Explain in brief S/MIME protocol [6]

- Q7)** a) Explain Firewall design principles and discuss types of firewalls [6]
b) What is need of SSL? Explain all Phases of SSL handshake protocol in detail. [6]
c) Discuss web security consideration [6]

OR

- Q8)** a) Discuss secure inter-branch payment transactions [6]
b) What are the types of intruders and what are intrusion techniques [6]
c) List and briefly explain three classes of intruders [6]

