B.E. / B.Tech - DEGREE EXAMINATIONS, NOV / DEC 2023
Sixth Semester
Electronics and Communication Engineering
20CSOE904 - NETWORK SECURITY
(Regulations 2020)

Duration: 3 Hours   Max. Marks: 100

PART - A (10 × 2 = 20 Marks)
Answer ALL Questions

Marks,
K-Level, CO

1. Outline the concept of Reply attack. — *2,K2,CO1*
2. Compare Substitution and Transposition techniques. — *2,K2,CO1*
3. List the services offered by IEEE 802.11i. — *2,K2,CO2*
4. Summarize the principal elements of a mobile device security strategy. — *2,K2,CO2*
5. Define Intruder. Name three different classes of intruder. — *2,K1,CO3*
6. Assume the client C wants to communicate server S using Kerberos procedure. How can it be achieved? Write the authentication dialogue. — *2,K2,CO3*
7. Difference between SDN and NFV. — *2,K1,CO4*
8. Justify how data protection is done in the cloud. — *2,K2,CO4*
9. List the mail forwarders of E-mail security. — *2,K1,CO5*
10. Mention the services provided by PGP. — *2,K1,CO5*

PART - B (5 × 13 = 65 Marks)
Answer ALL Questions

11. a) Discuss in detail about Block Cipher Modes of Operation. — *13,K2,CO1*
    OR
    b) Explain Data Encryption Standard (DES) in detail. — *13,K2,CO1*

12. a) Discuss about IEEE 802.11i wireless LAN security and explain the different phases of operation. — *13,K2,CO2*
    OR
    b) Describe WAP protocol architecture and WAP environment in detail. — *13,K2,CO2*

13. a) (i) Depict the importance of Password management. — *7,K2,CO3*
       (ii) Explain about X.509 authentication services. — *6,K2,CO3*

K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create   ***12216***

b) Discuss how firewall configurations help in establishing security framework. *13,K2,CO3*

14. a) Explain in detail about IoT security framework. *13,K2,CO4*

OR

b) (i) Write briefly about cloud security risks and countermeasures. *6,K2,CO4*

(ii) Enumerate the concept of data protection. *7,K2,CO4*

15. a) Explain the operation of Pretty good privacy in detail. *13,K2,CO5*

OR

b) Enumerate the features of S/MIME in detail. *13,K2,CO5*

PART - C (1 × 15 = 15 Marks)

16. a) Describe about SSL/TLS protocol operation with neat diagrams. *15,K2,CO6*

OR

b) Explain the operation of secure electronic transaction (SET) in detail. *15,K3,CO6*