Question Bank

1. With neat diagrams explain in detail Message Authentication Code (MAC) and its usage. ---------- (10M)
2. Explain Message Authentication Requirements ----------(6M)
3. Illustrate the various uses and applications of hash functions----------(6M)
4. Illustrate Encryption Using Optimal Asymmetric Encryption Padding (OAEP)-----(6M)
5. Explain the types of distribution of public keys------(8M)
6. Explain Internal and External error control with neat diagrams---(6M)
7. Explain Message Authentication Code (MAC) and its usage in detail-------(7M)
8. What is Digital Signature? Explain Digital Signature properties and requirements----------(6M)
9. Explain DSA(Digital Signature Algorithm) in detail with its components , Signing and Verifying---(10M)
10. Illustrate the shortcomings of Kerberos Version 4 ----------(4M)
11. Explain with neat diagram the general format of X.509 certificate. ----------(8M)
12. Explain Kerberos 4 Authentication dialogue with series of exchanges between client and server--------(8M)
13. Explain Kerberos Realm and multiple Kerberi with neat diagram.--------(5M)
14. Explain Pretty Good Privacy transmission and reception of PGP messages with a neat diagram-------(10M)
15. In the real time messaging app data handoff from device to device, what are the some common internal and external errors that can arise during message authentication with message encryption, Illustrate internal and external error occurs with neat diagrams–(6M)
16. What is Kerberos? With diagram explain the overview of Kerberos. ----------(8M)
17. Explain the Public Key Infrastructure (PKIX) model with a detailed diagram.—(8M)
18. Explain with neat diagram the general format of X.509 certificate.
19. Explain the applications of IPsec.---------4M)
20. Illustrate the IPSec Authentication Header (AH) and detail all its fields. ---- (6M)
21. Explain with neat diagram IP security architecture. -------- (10M)

INTRUSION

22. Illustrate the types of intrusion detection techniques (6M)
23. Explain password management with neat diagram and salting techniques.—(6M)
24. Explain DDOS(Distributed Denial of Service )with examples and mention DDOS countermeasures--------(8)
25. Consider a scenario where , during regular business hours, the IDS(Intrusion Detection System) identifies a significant increase in outbound traffic from a finance department workstation to a suspicious external IP address.Illustrate how different types of statistical anomaly based intrusion detection systems can be used to detect and respond to a real time data exfiltration attempt in a corporate network?----(6M)
26. Explain with a diagram, SSL Record Protocol Operation (10M)
27. Explain Transport Layer Security in detail-------(10M)
28. Explain virus countermeasures.--------(4M)
29. Illustrate SSL Handshaking protocol with all the 4 phases-------(10M)
30. Illustrate the type of firewalls with neat diagrams---------(8M)
31. Explain S/MIME functionality? And Cryptographic Algorithms------(6M)

32. Illustrate all the four cases of combining security associations---------(5M)
33. Explain Oakley Key determination protocol in detail with example-----(8M)
34. Explain SET Dual Signature with a neat diagram?----(6M)
35. How to configure firewalls, explain with neat diagram?-----(7M)
36. How security can be ensured using trusted systems?--------(4M)
37. Explain the types of various virus------(5M)