

**Department of Computer Science and Engineering**  
**CS6004 - Cyber Forensics**  
**Question Bank (2017-18 ODD)**

**Unit 2. E-MAIL SECURITY & FIREWALLS**

**Part – A**

1. What are the security services provided by PGP ?
2. List the various compression used in PGP?
3. Consider a packet with length 100. Compute its length encoded in one octet.
4. Draw the PGP message format.
5. What are the security services provided by S/MIME ?
6. What are the disadvantages of SMTP ?
7. Consider an MIME message that contains a photograph in standard GIF representation. Write the header format of this message.
8. What is triple wrapped message ?
9. What is Firewall?
10. Name the Categories of firewall
11. What are the advantages and disadvantages of firewall?
12. How will the firewall helps the user 'A' in a trusted network to connect to the Internet?
13. When will the firewall block the connection from the Internet?
14. List the attacks from which the firewall protects the Trusted Network.
15. Can we implement a VPN in firewall
16. What tool is used to detect Intruder attack?
17. How will SOCKS establish a connection between a trusted network and un-trusted network?
18. How the choke point helps the firewall device to prevent the hacker?
19. What is DMZ?
20. What is the need for logging and alarm in firewall?
21. What are the services provided by VPN?
22. What are the disadvantages of packet filters?
23. List the merits of circuit level gateways
24. List the merits of application level gateways?
25. What are the classifications of Proxies?
26. Compare the single homed Bastion host with Dual homed Bastion host?
27. How the vulnerability issues are taken care in proxy server?
28. Name the packet filters that provides security
29. List the business requirement for SET.
30. What are the system participants for SET protocol?
31. What cryptography principles are incorporated in SET protocol?
32. What is Dual Signature?

**Part –B**

1. Discuss how Encryption service is provided by PGP ?
2. Discuss how Authentication service is provided by PGP ?
3. How radix-64 conversion is applied in PGP? Discuss.
4. Explain in detail the PGP message format.
5. How a MIME set of software transforming functions that transforms non-ASCII data to ASCII data and vice versa.
6. Discuss the MIME header format used to secure an e-mail.
7. How OpenPGP ensures that security is provided in MIME ?
8. Discuss the six content types of CMS used in S/MIME ?
9. List the demerits of Packet Filters
10. How network security is ensured by using 'Bastion Host'?
11. How does a proxy server establish a connection between the trusted network and untrusted network?
12. Discuss different types of firewall
13. Discuss packet filtering rule applied to forward or discard the packet.
14. How to build a secure firewall design to prevent the firewall devices?
15. Discuss the Encryption/Decryption Process for Message integrity in SET.
16. Discuss the business requirement for SET
17. Discuss the various process involved in SET payment processing