Quiz 1: System Software – Day 2

Mail Server – VPN Server

**Mail Server**

**1.** Simple mail transfer protocol (SMTP) utilizes \_\_\_\_\_\_\_\_\_ as the transport layer protocol for electronic mail transfer.  
a) TCP  
b) UDP  
c) DCCP  
d) SCTP

Answer: a  
Explanation: Since TCP is a reliable protocol, it’s more efficient to use TCP protocol for e-mail transfer. TCP also provides more security than other transport layer protocols.

**2.** SMTP uses which of the following TCP port?  
a) 22  
b) 23  
c) 21  
d) 25

Answer: d  
Explanation: Port 21 is used for FTP control connection, port 22 is used by SSH, and port 23 is used by TELNET.

**3.** Which of the following protocol is not used to receive mail messages?  
a) SMTP  
b) Post Office Protocol (POP)  
c) Internet Message Access Protocol (IMAP)  
d) FTP

Answer: d  
Explanation: FTP is used to share files. SMTP, POP and IMAP are the protocols used to send and receive mails on the internet.

**4.** An email client needs to know the \_\_\_\_\_\_\_\_\_ of its initial SMTP server.  
a) IP address  
b) MAC address  
c) URL  
d) Name

Answer: a  
Explanation: The client needs to know the IP of its initial SMTP server as it has to send the mail first to that server and then the server forwards the mail ahead on behalf of the user.

**5.** When the mail server sends mail to other mail servers it becomes \_\_\_\_\_\_\_\_\_\_\_\_  
a) SMTP server  
b) SMTP client  
c) Peer  
d) Master

Answer: b  
Explanation: SMTP clients are the entities that send mails to other mail servers. The SMTP servers cannot send independent mails to other SMTP servers as an SMTP server. There are no masters or peers in SMTP as it is based on the client-server architecture.

**6.** If you have to send multimedia data over SMTP it has to be encoded into \_\_\_\_\_\_\_  
a) Binary  
b) Signal  
c) ASCII  
d) Hash

Answer: c  
Explanation: Since only 7-bit ASCII codes are transmitted through SMTP, it is mandatory to convert binary multimedia data to 7-bit ASCII before it is sent using SMTP.

**7.** Expansion of SMTP is \_\_\_\_\_\_\_\_  
a) Simple Mail Transfer Protocol  
b) Simple Message Transfer Protocol  
c) Simple Mail Transmission Protocol  
d) Simple Message Transmission Protocol

Answer: a  
Explanation: SMTP or Simple Mail Transfer Protocol is an application layer protocol used to transport e-mails over the Internet. Only 7-bit ASCII codes can be sent using SMTP.

**8.** The underlying Transport layer protocol used by SMTP is \_\_\_\_\_\_\_\_  
a) TCP  
b) UDP  
c) Either TCP or UDP  
d) IMAP

Answer: a  
Explanation: TCP is a reliable protocol, and Reliability is a mandatory requirement in e-mail transmission using SMTP.

**9.** Which of the following is an example of user agents for e-mail?  
a) Microsoft Outlook  
b) Facebook  
c) Google  
d) Tumblr

Answer: a  
Explanation: Among the options, only Microsoft Outlook is an e-mail agent. Google is a search engine and Facebook, and Tumblr are social networking platforms. Gmail and Alpine are some other examples of e-mail agent.

**10.** Choose the statement which is wrong incase of SMTP?  
a) It requires message to be in 7bit ASCII format  
b) It is a pull protocol  
c) It transfers files from one mail server to another mail server  
d) SMTP is responsible for the transmission of the mail through the internet

Answer: b  
Explanation: In SMTP, the sending mail server pushes the mail to receiving mail server hence it is push protocol. In a pull protocol such as HTTP, the receiver pulls the resource from the sending server.

**VPN Server**  
  
**1.** VPN is abbreviated as \_\_\_\_\_\_\_\_\_\_  
a) Visual Private Network  
b) Virtual Protocol Network  
c) Virtual Private Network  
d) Virtual Protocol Networking

Answer: c  
Explanation: A Virtual Private Network i.e. VPN is a technique used in networking or other intermediate networks for connecting computers and making them isolated remote computer networks, maintaining a tunnel of security and privacy.

**2.** VPNs uses encryption techniques to maintain security and privacy which communicating remotely via public network.  
a) True  
b) False

Answer: a  
Explanation: All VPNs are formed with a combination of tunnelling protocols as well as encryption techniques for maintaining privacy and security.

**3.**  There are \_\_\_\_\_\_\_\_\_ types of VPNs.  
a) 3  
b) 2  
c) 5  
d) 4

Answer: b  
Explanation: VPNs are of two types. These are remote access VPNs & Site-to-site VPNs. Remote Access VPNs are used for business & home users. Site-to-site VPNs are mainly used in companies and firms with different geographical locations.

**4.** Site-to-site VPNs are also known as \_\_\_\_\_\_\_\_  
a) Switch-to-switch VPNs  
b) Peer-to-Peer VPNs  
c) Point-to-point VPNs  
d) Router-to-router VPNs

Answer: d  
Explanation: Site-to-site VPNs are also known as Router-to-router VPNs. They are mainly used in companies and firms with different geographical locations.

**5**. \_\_\_\_\_\_\_\_\_ type of VPNs are used for home private and secure connectivity.  
a) Remote access VPNs  
b) Site-to-site VPNs  
c) Peer-to-Peer VPNs  
d) Router-to-router VPNs

Answer: a  
Explanation: Remote access VPN allows individual users to connect to private networks at home and access resources remotely.

**6.** For secure connection, Remote access VPNs rely on \_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_  
a) IPSec, SSL  
b) L2TP, SSL  
c) IPSec, SSH  
d) SSH, SSL

Answer: a  
Explanation: A remote-access VPN typically depends on either Secure Sockets Layer (SSL) or IP Security (IPsec) for a secure connection over public network.

**7.** \_\_\_\_\_\_\_\_\_\_ masks your IP address.  
a) Firewall  
b) Antivirus  
c) VPN  
d) Incognito mode

Answer: c  
Explanation: VPNs are used for masking user’s IP address and maintain anonymity. This protects leakage of IP address that almost every website grabs when a user opens a website.

**8.** For secure connection, Remote access VPNs rely on \_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_  
a) IPSec, SSL  
b) L2TP, SSL  
c) IPSec, SSH  
d) SSH, SSL

Answer: a  
Explanation: A remote-access VPN typically depends on either Secure Sockets Layer (SSL) or IP Security (IPsec) for a secure connection over public network.

**9.** Using VPN, we can access \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
a) Access sites that are blocked geographically  
b) Compromise other’s system remotely  
c) Hide our personal data in the cloud  
d) Encrypts our local drive files while transferring

Answer: a  
Explanation: With the help of VPN, users can access and connect to sites that are kept blocked by the ISPs based on a specific geographic location.

**10.** Which of the statements are not true to classify VPN systems?  
a) Protocols used for tunnelling the traffic  
b) Whether VPNs are providing site-to-site or remote access connection  
c) Securing the network from bots and malwares  
d) Levels of security provided for sending and receiving data privately

Answer: c  
Explanation: VPN systems have specific protocols for tunnelling the traffic, secure remote access connectivity as well as make sure how many levels of security it is providing for private data communication.