

Exam Report: 6.5.5 Practice Questions

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Individual Responses

▼ Question 1:

Incorrect

Which of the following are valid IP addresses? (Select TWO.)

- ☐ 1.254.1.1024
- ☐ 256.0.0.1
- ➡ ☐ 2.2.2.2
- ➡ ☒ 172.16.1.26
- ☒ ~~192.168.1.512~~
- ☐ 10.384.0.3
- ☐ 254.7.1.417

Explanation

A valid IPv4 address consists of four 8-bit (1 byte) numbers separated by periods. For example, 10.0.0.65 is a valid IP address. Because they are e8 bits long, these numbers are frequently called octets. Even though we typically express these numbers using decimal notation, it's important to remember that these numbers are binary numbers. The lowest value one of these numbers can have is 00000000. The decimal equivalent for this number is simply 0. The highest value one these numbers can take is 11111111. The decimal equivalent of this number is 255. Therefore, in decimal notation, each octet must contain a number between 0 and 255.

References

TestOut PC Pro - 6.5 IP Networking
[e_netaddr_pp6.exam.xml Q_ADDRESSING_IP_ADDR_01]

▼ Question 2:

Correct

Which of the following are not valid IP addresses? (Select THREE.)

- ☐ 1.55.254.3
- ➡ ☒ 257.0.122.55
- ➡ ☒ 45.22.156.256
- ➡ ☒ 145.8.260.7
- ☐ 122.0.0.0
- ☐

☒ 132.64.32.8☐ 116.0.0.116

Explanation

IP addresses have a value between 0 and 255 within each octet. In this list, 45.22.156.256, 145.8.260.7, and 257.0.122.55 are not valid IP addresses.

References

TestOut PC Pro - 6.5 IP Networking

[e_netaddr_pp6.exam.xml Q_ADDRESSING_IP_ADDR_02]

▼ Question 3: Correct

You want to implement name resolution on the Linux workstations in your company. Which protocol will you use to do this?

☐ WINS

☐ NTP

➡ ☒ DNS

☐ SMTP

☐ LMHOSTS file

Explanation

You can use DNS name resolution for Linux workstations (as well as for most other operating systems). NetBIOS name resolution (LMHOSTS files or WINS) is typically used on Windows-based networks. The Lmhosts file is a local text file that maps Internet Protocol (IP) addresses to the NetBIOS names of remote servers you communicate with over the TCP/IP protocol. A WINS server address is only needed if you have older Windows clients on multiple networks. Network Time Protocol (NTP) is a means of transmitting time signals over a computer network. Simple Mail Transfer Protocol (SMTP) is used to route electronic mail through the internetwork. Email applications provide the interface to communicate with SMTP or mail servers.

References

TestOut PC Pro - 6.5 IP Networking

[e_netaddr_pp6.exam.xml Q_IP_FACT_DNS_PROTOCOL]

▼ Question 4: Incorrect

You want to allow your users to download files from a server running the IP protocol. You want to protect access to the files by requiring user authentication to access specific directories on the server. Which IP protocol should you implement to provide this capability?

☐ TFTP

☒ ~~SSH~~

☐ LDAP

☐ SNMP

➡ ☐ FTP

☐ SMTP

Explanation

You should implement the File Transfer Protocol (FTP). It enables file transfers and supports user authentication. The Trivial File Transfer Protocol (TFTP) also enables file transfer, but does not support user authentication. The Simple Mail Transfer Protocol (SMTP) is used to transfer email message from email clients to email servers. The Lightweight Directory Access Protocol is used to access information

about network resources stored in a directory server. The Secure Shell protocol (SSH) is used to securely access the console prompt of a remote computer system. The Simple Network Management Protocol (SNMP) is used to remotely monitor and manage network devices and hosts.

References

TestOut PC Pro - 6.5 IP Networking

[e_netaddr_pp6.exam.xml Q_IP_FACT_FTP_PROTOCOL]

▼ Question 5: Incorrect

Which of the following protocols is used by an email client to retrieve messages from an email server and gives users the option to keep mail messages on the server?

- ☐ NTP
- ☐ POP3
- ☒ SMTP
- ➡ ☐ IMAP

Explanation

IMAP allows a mail server to keep a copy of a user's messages on the server after they are downloaded to the mail client. A POP3 server is also used by a mail client to retrieve messages from a mail server, but it requires that the messages be deleted from the server after they have been downloaded. SMTP allows a user to send email to a server, but it can't be used to retrieve messages from the server. The NTP protocol synchronizes the clocks of all computers on a network.

References

TestOut PC Pro - 6.5 IP Networking

[e_netaddr_pp6.exam.xml Q_IP_FACT_IMAP_PROTOCOL]

▼ Question 6: Incorrect

You want to use your Windows workstation to browse the websites on the internet. You use a broadband DSL connection to access the internet. Which network protocol must be installed on your workstation to do this?

- ☐ SLIP
- ☒ NetBIOS
- ☐ IPX/SPX
- ➡ ☐ IP
- ☐ PPP

Explanation

The IP is the protocol of the internet. If you want to use the internet, your computer must have the IP protocol installed and configured. The Serial Line Internet Protocol (SLIP) is a mostly obsolete encapsulation of the Internet Protocol designed to work over serial ports and modem connections. The Point-to-Point Protocol (PPP) is also commonly used with modem connections. IPX/SPX is the protocol suite used on legacy NetWare networks. NetBIOS is the term used to describe the combination of two protocols, NetBEUI and NetBIOS. NetBIOS was used in early Windows networks. Because NetBIOS is a non-routable protocol, it was often combined with TCP/IP or IPX/SPX to enable internetwork communications.

References

TestOut PC Pro - 6.5 IP Networking

[e_netaddr_pp6.exam.xml Q_IP_FACT_IP_PROTOCOL]

▼ Question 7: Incorrect

Match each port number on the left with its associated protocols on the right.

Secure Shell (SSH)

☒ 22

Apple Filing Protocol (AFP)

☐ 548

HTTP over SSL (HTTPS)

☒ 443

Hypertext Transfer Protocol (HTTP)

☒ 80

Server Message Block (SMB/CIFS) directly over TCP

☒ 445

Service Location Protocol (SLP)

☒ 427

Internet Message Access Protocol (IMAP)

☒ 143

Explanation

The default ports match with the following protocols:

- Port 22: Secure Shell (SSH)
- Port 80: Hypertext Transfer Protocol (HTTP)
- Port 443: HTTP over SSL (HTTPS)
- Port 445: Server Message Block (SMB/CIFS) directly over TCP
- Port 143: Internet Message Access Protocol (IMAP)
- Port 427: Service Location Protocol (SLP)
- Port 548: Apple Filing Protocol (AFP)

References

TestOut PC Pro - 6.5 IP Networking

[e_netaddr_pp6.exam.xml Q_IP_FACT_PORTS_PROTOCOLS_01-PB]

▼ Question 8: Incorrect

An administrator configures a server to run the TCP/IP suite protocol that allows users to download files contained in specific directories on the server and also protects access to those files by requiring user authentication.

Which of the following TCP/IP port numbers allow this protocol to work properly? (Select TWO).

➡ ☒ 20

➡ ☐ 21

☐ 53

☐ 80

☐ 110

Explanation

The TCP/IP suite protocol that allows users to download files from a server that protects access to the files by requiring user authentication to access specific directories on the server is FTP. FTP uses ports

20 and 21.
DNS uses port 53.

HTTP uses port 80.

POP3 email clients use port 110.

References

TestOut PC Pro - 6.5 IP Networking

[e_netaddr_pp6.exam.xml Q_IP_FACT_PORTS_PROTOCOLS_05]

▼ Question 9: Incorrect

To assist a user, a help desk technician is able to take advantage of a Windows proprietary network protocol that allows the technician to open a graphical interface to connect with the user's Windows computer.

Which of the following TCP/IP port numbers is the default port used by this protocol?

☐ 80

☒ 143

☐ 443

➡ ☐ 3389

Explanation

The Windows proprietary network protocol that allows the technician to open a graphical interface to connect with the user's Windows computer is Remote Desktop Protocol (RDP). By default, RDP uses port 3389.

HTTP uses port 80.

HTTPS uses port 443.

IMAP email clients use port 143.

References

TestOut PC Pro - 6.5 IP Networking

[e_netaddr_pp6.exam.xml Q_IP_FACT_PORTS_PROTOCOLS_06]

▼ Question 10: Correct

While making an online bank transaction, a customer checks to see that the web browser is displaying a lock icon that indicates that an encrypted TCP/IP suite protocol is being used.

Which of the following TCP/IP port numbers does this protocol typically use when the browser encrypts its communications with the bank's web server?

☐ 25

☐ 80

☐ 143

➡ ☒ 443

Explanation

The TCP/IP suite protocol web browsers use for encrypted communications is HTTPS. HTTPS typically uses port 443.

HTTP uses port 80.

SMTP uses port 25.

The IMAP email protocol uses port 143.

References

TestOut PC Pro - 6.5 IP Networking
[e_netaddr_pp6.exam.xml Q_IP_FACT_PORTS_PROTOCOLS_08]

▼ Question 11: Incorrect

A user is configuring an email client application and plans to use a standard TCP/IP suite protocol to retrieve email messages from an email server.

Which of the following TCP/IP suite protocols can be used to retrieve email messages? (Select TWO).

☐ Lightweight Directory Access Protocol (LDAP)

➡ ☐ Post Office Protocol (POP3)

☐ Simple Network Management Protocol (SNMP)

➡ ☒ Internet Message Access Protocol (IMAP)

☒ Simple Mail Transfer Protocol (SMTP)

Explanation

Both POP3 and IMAP can be used to retrieve email messages from an email server.

While SMTP is used to send and retrieve email messages between email servers, client email applications typically use SMTP to send email messages to an email server.

SNMP is used to collect information about managed devices on IP networks and for modifying settings to change the behavior of the network device.

LDAP is used to access and maintain distributed directory information services.

References

TestOut PC Pro - 6.5 IP Networking
[e_netaddr_pp6.exam.xml Q_IP_FACT_PORTS_PROTOCOLS_09]

▼ Question 12: Correct

While working on a Windows workstation, you've enabled Remote Desktop.

Which of the following ports MUST be opened in the server's firewall to allow remote clients to access the desktop?

➡ ☒ 3389

☐ 123

☐ 389

☐ 110

Explanation

The RDP protocol runs on port 3389 by default. Port 110 is used by the POP3 protocol. Port 389 is used by the LDAP protocol. Port 123 is used by the NTP protocol.

References

TestOut PC Pro - 6.5 IP Networking
[e_netaddr_pp6.exam.xml Q_IP_FACT_PORT_3389]

▼ Question 13: Correct

You've just installed the DNS service on a Windows server. Which port must be opened in the server's firewall to allow clients to access the service?

☐ 110

☐ 143

☐ 123 ☒ 53

Explanation

The DNS service runs on port 53 by default. Port 110 is used by the POP3 protocol. Port 143 is used by the IMAP protocol. Port 123 is used by the NTP protocol.

References

TestOut PC Pro - 6.5 IP Networking

[e_netaddr_pp6.exam.xml Q_IP_FACT_PORT_53]

▼ Question 14: Correct

Which protocol is used to send email messages from a mail client to a mail server?

☐ POP3 ☒ SMTP☐ FTP☐ SNMP☐ IMAP

Explanation

SMTP sends email from a mail client to a mail server. FTP provides a generic method for transferring files. SNMP is used in network management systems to monitor network-attached devices for conditions that warrant administrative attention. POP3 and IMAP are both email protocols used by mail clients to retrieve email from a mail server; however, they can't be used to send mail from the client to the server. The Trivial File Transfer Protocol (TFTP) is used for network file transfers.

References

TestOut PC Pro - 6.5 IP Networking

[e_netaddr_pp6.exam.xml Q_IP_FACT_SMTP_PROTOCOL]

▼ Question 15: Incorrect

You are a software developer, and you are creating a multimedia streaming application. Data will be streamed from your streaming server to streaming clients over IP networks. Which transport protocol should your application use to send data between the clients and the server?

☐ SNMP☐ ICMP☒ ~~TCP~~ ☐ UDP

Explanation

The User Datagram Protocol (UDP) protocol can be used with the IP protocol to create unacknowledged connections between the server application and its clients. Because the packets are sent unacknowledged, latency will be dramatically reduced, providing better streaming performance. The Transmission Control Protocol (TCP) uses acknowledged connections, which would introduce considerable latency and reduce streaming performance. The Simple Network Management Protocol (SNMP) is used to monitor and manage network devices. The Internet Control Message Protocol is used to send and receive error messages on an IP network.

References

TestOut PC Pro - 6.5 IP Networking

[e_netaddr_pp6.exam.xml Q_IP_FACT_UDP_PROTOCOL]