

12.1.9 Practice Questions

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Score: 100%

Passing Score: 80%



▼ Question 1: ✓ Correct

You are an application developer. You are writing a program to exchange video files through a TCP/IP network. You need to select a transport protocol that will guarantee delivery.

Which TCP/IP protocol would you implement that provides this capability?

☐ TFTP

☐ RIP

☐ UDP

☐ IP

➡ ☒ TCP

Explanation

Write the application to use the Transmission Control Protocol (TCP). TCP guarantees delivery through error checking and acknowledgments.

References

 12.1.2 IP Protocol Facts

q_ports_f_lp5_03.question.fex

▼ Question 2:

✓ Correct

You attempt to telnet to system 192.168.1.240. You receive the following message:

"Connecting To 192.168.1.240...Could not open connection to the host, on port 23. No connection could be made because the target machine actively refused it."

What may be the problem?

- ➡ ☒ The Telnet server is not running.
- ☐ The DNS server is down.
- ☐ The Telnet client is not installed.

Explanation

The error message is an indication that the Telnet server on the target system is not running. The Telnet client must be installed for you to make a connection. DNS has no part in making this connection because you are using the IP address of the system. The Tomcat server is an open-source Java application server.

References**12.1.2 IP Protocol Facts**

q_ports_f_lp5_05.question.fex

▼ Question 3: **✓ Correct**

You have a computer that is connected to the internet through a NAT router. You want to use a private addressing scheme for your computer.

Which of the following IP addresses could you assign to the computer? (Select THREE).


- ☐ 240.12.188.1
- ➡ ☒ 10.0.12.15
- ☐ 224.15.166.12
- ☐ 127.0.0.1
- ➡ ☒ 192.168.12.253
- ☐ 32.188.99.10
- ➡ ☒ 172.18.188.67

Explanation

Of the addresses listed here, the following are in the private IP address ranges:

- 10.0.12.15 (private range = 10.0.0.0 to 10.255.255.255)
- 172.18.188.67 (private range = 172.16.0.0 to 172.31.255.255)
- 192.168.12.253 (private range = 192.168.0.0 to 192.168.255.255)

References

 **12.1.6 IPv4 Addressing Facts**

q_ip_address_ip5_03.question.fex

▼ Question 4:

✓ Correct

Which TCP/IP configuration parameter identifies the router that is used to reach hosts on remote networks?

➡ ☒ Default gateway

☐ IP address

☐ Host name

☐ Subnet mask

Explanation

The default gateway identifies the router to which packets for remote networks are sent.

The subnet mask identifies which portion of the IP address is the network address. The IP address identifies both the logical host and logical network addresses. The hostname identifies the logical name of the local system.

References

12.1.6 IPv4 Addressing Facts

q_ip_address_ip5_11.question.fex

▼ Question 5: **✓ Correct**


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

- ☐ 116.0.0.116
- ➡ ☒ 145.8.260.7
- ➡ ☒ 45.22.156.256
- ☐ 132.64.32.8
- ☐ 1.55.254.3
- ➡ ☒ 257.0.122.55

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

 **12.1.6 IPv4 Addressing Facts**

q_ip_address_ip5_16.question.fex

▼ Question 6: **✓ Correct**

Out of concern for security, you convinced your boss to stop allowing Telnet access to the network. Now, remote connections are only made through ssh.

Which port must you allow through the firewall for ssh access?

➡ ☒ 22

☐ 23

☐ 24

☐ 25

Explanation

ssh uses port 22 by default.

References

 **12.1.8 IP Port Facts**

q_com_port_ip5_01.question.fex

▼ Question 7: **✓ Correct**

Which port number is used by the IMAP protocol?

- ☐ 25
- ☐ 21
-  ☒ 143
- ☐ 110

Explanation

IMAP uses port 143.

FTP uses port 21, SMTP uses port 25, and POP uses port 110.

References

 **12.1.8 IP Port Facts**

q_com_port_lp5_02.question.fex

▼ **Question 8:**

✓ Correct

To transfer files to your company's internal network from home, you use FTP. The administrator has recently implemented a firewall at the network perimeter and disabled as many ports as possible.

Now you can no longer make the FTP connection. You suspect the firewall is causing the issue.

Which ports need to remain open so you can still transfer the files? (Select TWO).

☐ 23☐ 80☐ 443☒ 21☒ 20**Explanation**

FTP uses port 21 for connection requests and port 20 for data transfers. Both ports would need to remain open for you to transfer files to your company's internal network from home. Telnet uses port 23, SSL uses port 443, and HTTP uses port 80.

References 15.12.1 Security Best Practices 15.12.2 Security Best Practices Facts

q_com_port_lp5_03.question.fex

▼ Question 9: **✓ Correct**

Which port does Telnet use?

☐ 25

 ☒ 23

☐ 34

☐ 80

Explanation

Telnet uses port 23.

References

15.12.1 Security Best Practices



15.12.2 Security Best Practices Facts

q_com_port_ip5_04.question.fex

▼ Question 10: **✓ Correct**

You are configuring a network firewall to allow SMTP outbound email traffic and POP3 inbound email traffic.

Which of the following TCP/IP ports should you open on the firewall? (Select TWO).

 ☒ 110

☐ 443

☐ 21

 ☒ 25

☐ 143

Explanation

The Simple Mail Transfer Protocol (SMTP) uses TCP/IP port 25. The Post Office Protocol version 3 (POP3) uses TCP/IP port 110.

The File Transfer Protocol (FTP) uses TCP/IP Port 21. The Internet Message Access Protocol (IMAP) uses TCP/IP port 143. TCP/IP port 443 is used by the Secure Sockets Layer (SSL) protocol.


References

 **12.1.8 IP Port Facts**

q_com_port_lp5_05.question.fex

▼ Question 11: **✓ Correct**

Which of the following network services or protocols uses TCP/IP port 22?

- ☐ IMAP4
- ☐ TFTP
-  ☒ **SSH**
- ☐ NNTP

Explanation

The Secure Shell (SSH) service uses TCP/IP port 22. SSH is a terminal emulation program similar to Telnet that provides secure authenticated sessions on a remote system. It is most commonly associated with Unix and Linux systems.

The Trivial File Transfer Protocol (TFTP) is a connectionless service for downloading files from a remote system. TFTP uses TCP/IP port 69. The Network News Transfer Protocol (NNTP) is used to access and download messages from newsgroup servers. NNTP uses TCP/IP port 119. The Internet Message Access Protocol version 4 (IMAP4) is used to download email from remote servers. IMAP 4 uses TCP/IP port 143.

References

 **12.1.8 IP Port Facts**

q_com_port_lp5_07.question.fex

▼ Question 12: **✓ Correct**

Which port number does SNMP use?

- ☐ 25
- ☐ 110
- ☐ 119
- ☐ 143

➡ ☒ 161

Explanation

The Simple Network Management Protocol (SNMP) uses port 161.

The other listed ports are used as follows:

- SMTP uses port 25.
- POP3 uses port 110.
- NNTP uses port 119.
- IMAP4 uses port 143.

References

12.1.8 IP Port Facts

q_com_port_lp5_08.question.fex

▼ Question 13: **✓ Correct**

You want to maintain tight security on your internal network, so you restrict access to the network through certain port numbers.

If you want to allow users to continue to use DNS, which port should you enable?

☐ 80

☐ 443

☐ 21

➡ ☒ 53

☐ 42

Explanation

The DNS service uses port 53.

References

12.1.8 IP Port Facts

q_com_port_lp5_09.question.fex

▼ Question 14: **✓ Correct**

What is the path and filename of the file in the Linux system that lists all network services, including the port assigned to the service?

**Explanation**

/etc/services lists all network services on the Linux system, including the port assigned to the service. Most applications reference /etc/services to determine which service is using a specific TCP/UDP port.

References**12.1.8 IP Port Facts**

q_com_port_lp5_10.question.fex

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