

STUDENT ACTIVITY 3.1_B_KEY: UNDERSTAND PROTOCOLS AND SERVICES

MTA Course: 98-366 Networking Fundamentals

Topic: Understanding protocols and services – Understand the TCP model

File name: NetFund_SA_3.1_B_Key

Lesson Objective

3.1_B: Understand the OSI model.

Resources, software, and additional files needed for this lesson

- None

Directions to the student

Answer the following questions by selecting the correct answer.

1. A packet whose destination is outside the local TCP/IP network segment is sent to

- a. ____ fileserver
- b. ____ default gateway
- c. ____ DNS server
- d. ____ DHCP server

Answer: B, default gateway

2. Why was the OSI model developed?

- a. Manufacturers disliked the TCP/IP protocol suite.
- b. ____ The rate of data transfer was increasing exponentially
- c. ____ Standards were needed to allow any two systems to communicate.
- d. ____ None of these

Answer: C, Standards were needed to allow any two systems to communicate

3. Which piece of information is not vital for a computer in a TCP/IP network?

- a. IP address
- ☒ b. default gateway
- ☒ c. subnet mask
- ☒ d. DNS server

Answer: D, DNS server

4. The physical layer is concerned with the physical medium movement of what?

- a. programs
- ☒ b. dialogs
- ☒ c. protocols
- ☒ d. bits

Answer: D, bits

5. Which one of the following functionalities is provided by IP?

- a. dialogs
- ☒ b. bits
- ☒ c. programs
- ☒ d. addressing

Answer: D, addressing

6. Which of the following can be an Ethernet physical address?

- a. 01:02:01:2C:4B
- ☒ b. 07:01:02:01:2C:4B:2C
- ☒ c. 07:01:02:01:2C:4B

Answer: C, 07: 01:02:01:2C:4B

7. An IP address contains how many bits?

- a. 8
- ☒ b. 16
- ☒ c. 32
- ☒ d. 64

Answer: C, 32

8. Which IP address is reserved for software loopback?

a. 224.x.x.x

→b. 127.x.x.x

→c. 0.0.0.0

→d. 255.255.255.255

Answer: B, 127.x.x.x

9. Which port is reserved for use of the SMTP protocol?

a. 21

→b. 23

→c. 25

→d. 27

Answer: C, 25

10. Which one of the following is a connectionless protocol?

a. UDP

→b. TCP

→c. OSI

→d. ISO

Answer: C, OSI