

EDTECH 552, lab2

**Multiple Choice Questions:**

1. How does CSMA/CD react to collisions? **C**
  - A. All systems jam the network, and then all begin transmitting again.
  - B. Hosts involved in a collision send an RTS signal indicating a time frame in which to retransmit.
  - C. Hosts involved in the collision send a jam signal, and then run an algorithm before retransmitting.
  - D. Collisions do not occur on CSMA/CD.
  
2. How is equal access to the wire managed in a collision-oriented environment such as Ethernet? **E**
  - A. The hosts are given equal access based on the circulation of a token; hosts can only transmit when they hold the token.
  - B. Hosts are given prioritized access to the wire based on their MAC address.
  - C. Hosts are given equal access to the wire by being allowed to transmit at specified time intervals.
  - D. Hosts signal their desire to transmit by sending a contention alert.
  - E. Hosts check the wire for activity before attempting to send; if a collision happens, they wait a random time period before attempting to send again.
  
3. Which answer correctly lists the OSI PDUs in order? **C**
  - A. Data, Packet, Frame, Segment, Bit
  - B. Bit, Data, Packet, Segment, Frame
  - C. Data, Segment, Packet, Frame, Bit
  - D. Bit, Frame, Segment, Packet, Data
  
4. Which transport layer protocol provides connection-oriented, reliable transport? **D**
  - A. TFTP
  - B. UDP
  - C. Ethernet
  - D. TCP
  - E. Secure Shell

5. Which of the following are true when comparing TCP/IP to the OSI Reference Model? (Choose two.) **B & C**

A. The TCP/IP model has seven layers while the OSI model has only four layers.

B. The TCP/IP model has four layers while the OSI model has seven layers.

C. The TCP/IP Application layer maps to the Application, Session, and Presentation layers of the OSI Reference Model.

D. The TCP/IP Application layer is virtually identical to the OSI Application layer.

6. In which layer of the TCP/IP stack is framing found? **D**

A. Network

B. Data Link

C. Internet

D. Network Access

7. Which of the following WAN technologies is considered packet switched? **A**

A. Frame relay

B. T1 lines

C. Dial-up

D. DSL

8. Which OSI layer is concerned with reliable end-to-end delivery of data? **B**

A. Application

B. Transport

C. Network

D. Data Link

9. Logical addressing is found in the \_\_\_\_\_ layer, while physical addressing is found in the \_\_\_\_\_ layer. **B**

A. Physical, Network

B. Network, Physical

C. Data Link, Network

D. Network, Data Link

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10. The OSI Reference Model layers, in order from top to bottom, are: **D**

A. Application, Physical, Session, Transport, Network, Data Link, Presentation

B. Application, Presentation, Network, Session, Transport, Data Link, Physical

C. Physical, Data Link, Network, Transport, Session, Presentation, Application

D. Application, Presentation, Session, Transport, Network, Data Link, Physical

## Lab 2.1 Packet Tracer

### Introduction

Packet Tracer is a self-paced, visual, interactive teaching and learning tool developed by Cisco. Lab activities are an important part of networking education. However, lab equipment can be a scarce resource. Packet Tracer provides a visual simulation of equipment and network processes to offset the challenge of limited equipment. Students can spend as much time as they like completing standard lab exercises through Packet Tracer, and have the option to work from home. Although Packet Tracer is not a substitute for real equipment, it allows students to practice using a command-line interface. This “e-doing” capability is a fundamental component of learning how to configure routers and switches from the command line.

### Download and install packet tracer

- a. You can download packet tracer 5 from  
<http://edtech2.boisestate.edu/hungj/edtech552/PacketTracer.exe>
- b. Simply double click on the **PacketTracer.exe** to install it.

### Tutorial video clips

Please watch following tutorial video clips:

Tutorial 1: Getting Start

Tutorial 2: Using the packet tracer interface

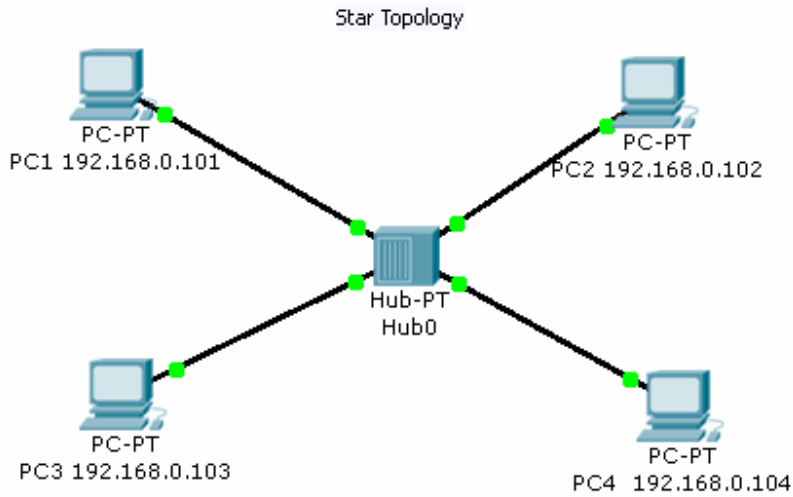
Tutorial 3: Build a simple network

To access these tutorials, please go to:

[http://bisontech.gfps.k12.mt.us/cisco/packet\\_tracer\\_module/shell.html](http://bisontech.gfps.k12.mt.us/cisco/packet_tracer_module/shell.html)

**Build a simple network**

- a. Build a simple network like the figure below using the packet tracer.



- b. Set the IP address information for each PC according to the information in the table.

Computer	IP Address	Subnet Mask	Default Gateway
PC1	192.168.0.101	255.255.255.0	192.168.0.1
PC2	192.168.0.102	255.255.255.0	192.168.0.1
PC3	192.168.0.103	255.255.255.0	192.168.0.1
PC4	192.168.0.104	255.255.255.0	192.168.0.1

- c. Please save your configuration file and submit it with this week's lab activities.