POTS and Dial-up

Total points 2

1. Another term for POTS, or the Plain Old Telephone System, is _____.   `1 / 1 point`

   ○ Public Available Telephone Network.

   ○ Public Switched Telephone Exchange.

   ◉ Public Switched Telephone Network.

   ○ Public Available Telephone Exchange.

   ○ Phone Switched Transport Network.

   > ✓ **Correct**
   > Nice work! POTS and PSTN refer to the same thing.

2. A baud rate is a measurement of the number of _____.   `1 / 1 point`

   ◉ bits that can be sent across a telephone line every second.

   ○ bytes that can be sent across a telephone line every second.

   ○ packets that can be sent across a telephone line every second.

   ○ data segments that can be sent across a telephone line every second.

   > ✓ **Correct**
   > That's right! A baud rate is equivalent to bits per second.

Broadband Internet

Total points 3

1. T1 is short for _____.   `1 / 1 point`

   ○ Transportation System 1.

   ○ Transmission 1.

   ◉ Transmission System 1.

   ○ Transportation 1.

   > ✓ **Correct**
   > Correct! T1 is short for Transmission System 1.

2. How fast is a T1 line?

1 / 1 point

- ○ 44.763 Mb/sec
- ● 1.544 Mb/sec
- ○ 1 Mb/sec
- ○ 128 Mb/sec

⊘ **Correct**
You nailed it! A T1 communicates at speeds of 1.544 Mb/sec.

3. Select all statements that are true of cable internet connections.

1 / 1 point

- ☑ They're shared bandwidth connections.

⊘ **Correct**
Great work! A cable connection is a shared bandwidth connection.

- ☐ They're dial-up connections.
- ☐ They're wireless connections.
- ☑ They're broadband connections.

⊘ **Correct**
Nice job! A cable connection is a broadband connection.

WANs

Total points 3

1. WAN stands for _____.

1 / 1 point

- ● Wide Area Network.
- ○ Wireless Local Area Network.
- ○ Wired Area Network.
- ○ Wireless Area Network.

⊘ **Correct**
Wohoo! WAN stands for Wide Area Network.

2. In a WAN, the area between a demarcation point and the ISP's core network is known as _____.

1 / 1 point

- ○ a local link
- ○ a Local Area Network
- ◉ a local loop
- ○ an access point

> ✓ **Correct**
> Correct! A local loop is the name for the area between a demarcation point and an ISP's network.

3. A point-to-point VPN is also known as a _____.

1 / 1 point

- ◉ site-to-site VPN
- ○ one-to-many VPN
- ○ port forwarding VPN
- ○ data link VPN

> ✓ **Correct**
> You got it! A point-to-point VPN can also be referred to as a site-to-site VPN.

Wireless Networking

Total points 3

1. How many address fields does an 802.11 header have?

1 / 1 point

- ○ 1
- ○ 2
- ○ 3
- ◉ 4

> ✓ **Correct**
> Awesome! There are four different address fields in an 802.11 header.

2. A wireless channel is _____.

1 / 1 point

- ○ a point-to-point wireless connection.
- ○ a collision domain.
- ○ an example of an ad-hoc network.
- ◉ a portion of a frequency band.

> ✓ **Correct**
> Good work! A channel represents a portion of a frequency band.

3. Choose all of the frequencies that wireless networks typically operate on.

1 / 1 point

- [ ] 88Mhz

- [ ] 1.544Ghz

- [x] 2.4Ghz

  ✓ **Correct**
  Right on! Many wireless networks operate on the 2.4Ghz frequency band.

- [x] 5Ghz

  ✓ **Correct**
  Correct! Many wireless networks operate on the 5Ghz frequency band.

Connecting to the Internet

Latest Submission Grade 93.75%

1. Question

1 / 1 point

A modulator/demodulator is better known as a _____.

- ( ) telephone

- ( ) radio

- (●) modem

- ( ) computer

⤢ **Expand**

✓ **Correct**
Correct! Modem stands for modulator/demodulator.

2. Question

1 / 1 point

The more accurate name for a cable modem is a _____.

- ( ) POTS

- ( ) DSLAM

- (●) CMTS

- ( ) ONT

⤢ **Expand**

✓ **Correct**
Yep! A CMTS is the proper name for a cable modem.

3. Question

ONT stands for _____.

○ Optical Network Telephone

○ Optional Network Traffic

○ Optical Network Tether

◉ Optical Network Terminator

⤢ **Expand**

✓ **Correct**
   Correct! An ONT sits between a fiber network and a more traditional copper one.

4. Question

A traditional wireless network involving access points that all have wired connections is known as a(n) _____.

○ LAN

◉ WLAN

○ WAN

○ ad-hoc network

⤢ **Expand**

✓ **Correct**
   Nice work! A WLAN is the term for a traditional wireless network.

5. Question

WPA2 uses a key that's ___ bits long.

○ 64

○ 128

◉ 256

○ 512

⤢ **Expand**

✓ **Correct**
   Wohoo! 256-bit keys are pretty difficult to break.

6. Question

Modems communicate data by using which method?

○ Electric charges

○ Light pulses

○ Radio frequency

◉ Audible wavelengths

↗ **Expand**

✓ **Correct**

Well done! Phone lines were developed to transmit sound. Modems transfer data through audible wavelengths.

7. Question

Which wireless security standards uses a 128-bit key?

◉ WiFi Protected Access (WPA)

○ Wired Equivalent Privacy (WEP)

○ WiFi Protected Access (WPA2)

○ Ad-hoc

↗ **Expand**

✓ **Correct**

Woohoo! WPA replaced WEP. It uses a 128-bit key making it harder to crack.

8. Question

An Internet connection problem for customers is found to be outside a carrier's regional office. As a result, which area needs troubleshooting?

○ Demarcation point

○ Core network

○ Wide Area Network (WAN)

◉ Local loop

↗ **Expand**

✓ **Correct**

Awesome! A local loop is the portion of a network between a customer's demarcation point and the carrier or ISP facility.

9. Question   1 / 1 point

In which wireless configuration type do nodes communicate directly with each other, rather than with an access point?

- ◯ 2.4Ghz
- ◯ 802.11b
- ◉ Ad-hoc
- ◯ Mesh network

↗ Expand

✓ **Correct**

You got it! In an ad-hoc network, all nodes communicate and transmit directly to each other.

10. Question   1 / 1 point

Similar to Wireless networks, cellular networks use band configuration to avoid what problem?

- ◯ Security
- ◉ Overlap
- ◯ Speed
- ◯ Distance

↗ Expand

✓ **Correct**

Great work! Cell towers are configured to use bands that don't overlap, just like WiFi uses different channels.

11. Question   1 / 1 point

Which form of Digital Subscriber Line (DSL) features differing upload and download speeds?

- ◯ SDSL
- ◯ DSLAM
- ◉ ADSL
- ◯ HDSL

↗ Expand

✓ **Correct**

Nice job! Asymmetric Digital Subscriber Line (ADSL) connections feature different speeds for outbound and incoming data.

12. Question

Which connection technology uses what is known as a CMTS?

○ Fiber optic

○ Digital Subscriber Line

◉ Cable Internet

○ Dial-up

↗ **Expand**

✓ **Correct**

You nailed it! The Cable Modem Termination System (CMTS) connects lots of different cable connections to an ISPs core network.

13. Question

What does a wireless LAN (WLAN) act as to a wired network?

○ Gateway

◉ Bridge

○ Switch

○ Router

↗ **Expand**

✓ **Correct**

Great work! As a wireless network connects and gives access to a wired network, acting as a bridge between the two.

14. Question

An IT suspects that an unauthorized device is connected to a wireless network. This is a result of passkey sharing on a device brought from home. What is put in place to stop such activity?

◉ Media Access Control (MAC) Filtering

○ Channel overlap

○ Collision domain

○ WiFi Protected Access 2 (WPA2)

↗ **Expand**

✓ **Correct**

Awesome! MAC filtering allows or disallows a device to connect to a network, based on a hardware address.

15. Question   0 / 1 point

Television broadcasts were originally delivered by using which technology?

○ Ethernet

◉ Broadband

○ Wireless

○ Coaxial cable

⤢ Expand

⊗ **Incorrect**
Not quite. Please review the videos in the "Broadband Connections" module for a refresher.

16. Question   1 / 1 point

What two benefits are a result of configuring a wireless mesh network? Check all that apply.

☑ Range

✓ **Correct**
Awesome! Range increases when access points are configured in a mesh where all points are connected to each other.

☑ Performance

✓ **Correct**
Nice job! Performance increases when access points are configured in a mesh where all points are connected to each other.

☐ WiFi protected setup

☐ Ad-hoc configuration

⤢ Expand

⊘ **Correct**
Great, you got all the right answers.