Exam Report: 11.3.5 Practice Questions

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Overall Performance

Your Score: 47%

Passing Score: 80%

View results by: ○ Objective Analysis   ● Individual Responses

Individual Responses

▼ **Question 1:**   <u>Correct</u>

Which of the following WAN technologies provides digital dial-up connections on two 64 Kbps data channels?

     ○ Frame relay

➡   ● ISDN BRI

     ○ ATM

     ○ X.25

Explanation

ISDN BRI is a dial-up-only service. Basic Rate ISDN provides access to two 64 Kbps data channels (B channels) and one 16 Kbps service channel (D channel). The two B channels can be used together for a total data transfer rate of 128 Kbps. Data compression can further increase the data transfer rate.

References

LabSim for Network Pro, Section 11.3.
[netpro18v5_all_questions_en.exm NP05_2-14 #121]

▼ **Question 2:**   <u>Correct</u>

A healthcare organization provides mobile clinics throughout the world. Which network technology should you select to transfer patient statistical data to a central database via the internet to ensure network connectivity for any clinic located anywhere in the world, even remote areas?

     ○ ISDN

     ○ Dial-up

     ○ Cable modem

➡   ● Satellite

     ○ DSL

Explanation

Satellite capability is available even in areas that do not have a local network infrastructure. Satellite requires a local portable transmitter with an antenna directed skyward to a satellite. Satellite service providers offer nearly 100% global network coverage by maintaining a series of satellites circling the earth in geosynchronous orbit.

Dial-up, ISDN ,and cable modem require a local network infrastructure provided by either the telephone company or cable television company.

References

LabSim for Network Pro, Section 11.3.
[netpro18v5_all_questions_en.exm NP05_2-15 #39]

▼ **Question 3:**   Incorrect

You are moving to an area where DSL will be available in the next six months. Which method of internet connectivity should you implement until DSL is available if your existing connectivity needs are minimal?

➡ ◯ PSTN

◉ ~~ISDN~~

◯ Satellite

◯ Cable modem

Explanation

Dial-up networking using the public switched telephone network (PSTN) offers sufficient network connectivity for a relatively minimal investment. You can use dial-up with little hardware, setup, or connection costs.

The other modes of networking provide greater capability than you require at more of an investment in equipment than is worthwhile for such a short period of time.

References

LabSim for Network Pro, Section 11.3.
[netpro18v5_all_questions_en.exm NP05_2-15 #57]

▼ **Question 4:**   Correct

Which of the following is most susceptible to interference-related to atmospheric conditions?

◯ Dial-up

◯ ISDN

◯ Cable modem

◯ DSL

➡ ◉ Satellite

Explanation

All networks are subject to extreme atmospheric conditions. Severe weather conditions can interrupt power telephone and other services. Satellite-based networking, however, is susceptible even to relatively mild atmospheric events such as fog and other conditions that can impair satellite transmissions.

References

LabSim for Network Pro, Section 11.3.
[netpro18v5_all_questions_en.exm NP05_2-15 #75]

▼ **Question 5:**   Incorrect

Which of the following is a characteristic of SDSL?

◉ ~~Speeds up to 100 Mbps~~

➡ ◯ Supports data traffic only (no voice)

◯ Requires splitters on the line

◯ Unequal download and upload speeds

Explanation

Symmetrical DSL (SDSL) has the following features:

- The entire line is used for data, making simultaneous voice and data impossible.
- Speeds between 1.544–2.048 Mbps are possible.
- Upload and download speeds are equal.
- Line splitters are not required because voice traffic is not on the line.

ADSL and VDSL have unequal upload and download speeds. Both support simultaneous voice and data traffic, so splitters are required. VDSL supports speeds up to 100 Mbps.

References

LabSim for Network Pro, Section 11.3.
[netpro18v5_all_questions_en.exm *NP15_INTERNET_CONNECTIVITY_03]

▼ **Question 6:** <u>Correct</u>

Which of the following internet connection technologies requires that the location be within a limited distance of the telephone company central office?

◯ Wireless

➡ ◉ DSL

◯ Satellite

◯ Cable modem

Explanation

There are several variations of the digital subscriber line (DSL) technology, which are collectively referred to as xDSL. DSL operates over existing telephone company copper wires. DSL operates concurrently with regular voice-grade communications by utilizing higher frequencies unused by voice transmissions. One of the consequences of splitting the signal in this manner is that DSL must operate within a fixed distance of the telephone company's network switching equipment.

A cable modem can be provided as a means of internet access by the cable television company anywhere within the service area of the cable television company.

References

LabSim for Network Pro, Section 11.3.
[netpro18v5_all_questions_en.exm *NP15_WAN_CONCEPTS_16]

▼ **Question 7:** <u>Incorrect</u>

Which of the following services are available regardless of whether the telephone company network is available?

◯ ISDN

◯ Dial-up

◉ ~~DSL~~

➡ ◯ Cable modem

Explanation

A cable modem is a network connectivity service provided by the cable television service provider. Cable modem operates by adding a bi-directional channel connected directly to an internet service provider (ISP) through cable TV lines. It does not depend on phone lines for the connection.

Dial-up refers to internet access provided over the telephone company analog network by modems. Integrated Services Digital Network (ISDN) is a method for providing digital connectivity service through the telephone company network. ISDN can combine multiple channels consisting of voice and data simultaneously. DSL is a digital service provided by telephone service providers. All of these methods operate over regular phone lines.

References

LabSim for Network Pro, Section 11.3.
[netpro18v5_all_questions_en.exm *NP15_WAN_CONCEPTS_17]

▼ **Question 8:** <u>Correct</u>

Which of the following internet services provides equal upload and download bandwidth?

➡ ⦿ SDSL

○ VDSL

○ VHDSL

○ ADSL

Explanation

Symmetrical DSL (SDSL) provides equal download and upload speeds. Depending on the region, speeds are between 1.544-2.048 Mbps. Newer SHDSL provides between 4.6-5.696 Mbps. The entire line is used for data; simultaneous voice and data is not supported. Splitters are not required because voice traffic does not exist on the line.

Asymmetrical DSL (ADSL) and Very High DSL (VDSL or VHDSL) provide different download and upload speeds.

References

LabSim for Network Pro, Section 11.3.
[netpro18v5_all_questions_en.exm *NP15_INTERNET_CONNECTIVITY_01]

▼ **Question 9:** <u>Incorrect</u>

Which of the following are characteristics of VDSL? (Select two.)

➡ ☐ Supports both data and voice at the same time

➡ ☑ Unequal download and upload speeds

☐ Equal download and upload speeds

☐ Supports only data (not voice)

☐ Does not require splitters

Explanation

Very High DSL (VDSL or VHDSL) is similar to asymmetrical DSL, but has higher speeds. Speeds can be up to 52 Mbps downstream and 12–16 Mbps upstream, depending on the distance. Newer VDSL2 provides up to 100 Mbps at a distance of 300 meters. Because both voice and digital data are supported on the same line at the same time, splitters are required.

Symmetrical DSL (SDSL) provides equal download and upload speeds. The entire line is used for data; simultaneous voice and data is not supported. Splitters are not required because

voice traffic does not exist on the line.

References

LabSim for Network Pro, Section 11.3.
[netpro18v5_all_questions_en.exm *NP15_INTERNET_CONNECTIVITY_02]

▼ **Question 10:** <u>Incorrect</u>

Which of the following cellular network types provide internet connectivity? (Choose four.)

➡ ☑ EDGE

➡ ☐ HSPA+

➡ ☑ 4G

➡ ☑ LTE

☑ ~~2G~~

Explanation

2G (second generation) networks were the first to offer digital data service such as text messaging, but did not provide internet connectivity.

Edge, HSPA+, LTE, and 4G all provide internet connectivity, and each has specific bandwidth limitations.

References

LabSim for Network Pro, Section 11.3.
[netpro18v5_all_questions_en.exm *NP15_INTERNET_CONNECTIVITY_04]

▼ **Question 11:** <u>Correct</u>

Which type of internet service uses the DOCSIS specification?

○ Shielded twisted pair

○ Unshielded twisted pair

○ Fiber optic

➡ ⦿ Coaxial cable

Explanation

The Data Over Cable Service Interface Specification (DOCSIS) defines coaxial cable networking specifications. It is used by cable TV providers to provide internet access over their existing coaxial cable infrastructure. It specifies channel widths and modulation techniques. It also defines the manner in which the core components of the network communicate.

References

LabSim for Network Pro, Section 11.3.
[netpro18v5_all_questions_en.exm RT NP15_5.4-1]

▼ **Question 12:** <u>Incorrect</u>

Which of the following forms of networking are highly susceptible to eavesdropping and must be secured accordingly?

○ Satellite

➡ ○ Wireless

⦿ ~~Dial-up~~

○ DSL

○ ISDN

Explanation

All forms of networking are potentially vulnerable to eavesdropping. Wireless networks by definition broadcast network transmissions openly and therefore can be detected by outsiders. For this reason, wireless networks should maintain data encryption to minimize the risk of transmitting information to unintended recipients.

Other forms of networking, while potentially susceptible to eavesdropping, cannot be detected as readily as wireless.

References

LabSim for Network Pro, Section 11.3.
[netpro18v5_all_questions_en.exm NP05_2-15 #48]

▼ **Question 13:**   Incorrect

Which of the following technologies does GSM use to allow multiple connections on the same frequency?

➡ ○ Time division multiple access

   ◉ ~~Code division multiple access~~

   ○ Frequency division multiple access

   ○ Multiple-input and multiple-output

Explanation

GSM uses time division multiple access (TDMA) to allow multiple connections on the same frequency.

Code division multiple access (CDMA) is not used by GSM, but it is the technology used by most mobile service providers in the United States. Multiple-input and multiple-output (MIMO) is a method for increasing data throughput and link range. Frequency division multiplexing (FDMA) is used primarily for satellite communications.

References

LabSim for Network Pro, Section 11.3.
[netpro18v5_all_questions_en.exm *NP15_INTERNET_CONNECTIVITY_09]

▼ **Question 14:**   Incorrect

Which of the following cellular network types use MIMO to increase 3G data throughput? (Select two.)

   ☐ WiMAX

➡ ☑ LTE

   ☑ ~~CDMA2000~~

➡ ☐ HSPA+

   ☐ EDGE

Explanation

Both HSPA+ and LTE are 3G extensions that use multiple-input and multiple-output (MIMO) to increase bandwidth.

EDGE was an intermediary network between 2G and 3G networks. WiMAX is a 4G specification that delivers high-speed internet service to large geographical areas. CDMA2000 is a 3G technology that adds additional traffic channels to increase bandwidth.

References

LabSim for Network Pro, Section 11.3.
[netpro18v5_all_questions_en.exm *NP15_INTERNET_CONNECTIVITY_05]

▼ **Question 15:**   <u>Correct</u>

Which of the following describe the EDGE cellular technology? (Select two.)

☐ An extension to 3G

➡ ☑ The first internet-compatible technology

➡ ☑ Offers speeds of 400–1,000 Kbps

☐ Uses MIMO

Explanation

The EDGE cellular technology was an intermediary between 2G and 3G networks. EDGE was the first cellular technology to be truly internet-compatible and has speeds of 400–1,000 Kbps.

MIMO is used by HSPA+, LTE, and 4G networks.

References

LabSim for Network Pro, Section 11.3.
[netpro18v5_all_questions_en.exm *NP15_INTERNET_CONNECTIVITY_07]