



Exam : 350-021

**Title : CCIE SP Cable Qualification
Exam**

Version : Demo

1. A router is set to boot from flash, but cannot find boot commands in the configuration. Also, valid files do not exist in the default flash device. The router will:

- A. Boot from ROM, since there are no valid sources
- B. Try to boot from the network, using a default filename
- C. Terminate the boot process with an error message
- D. Try to boot from the network, then boot from ROM as a backup

Answer: D

2. A network administrator is using debug commands to check the performance of a network. What steps can the administrator take to ensure that the "debug" will not require too much CPU, or at least that she will not have to reboot the router to disable debug? (multiple answer)

- A. Make the debug command as specific as possible
- B. Use the max-time parameter of the debug command
- C. In configuration mode, enter scheduler interval 15
- D. Configure a loopback to channel debug traffic

Answer: AC

3. If there are two different headends with two different frequencies available sharing the same plant, what frequency will the two groups of cable modems, which are brand new, and have never been on-line, lock on?

- A. They will lock on the frequency configured on the linecard.
- B. They will lock on the frequency configured on the upconverter.
- C. They will lock on the first frequency they find.
- D. They will lock on the lowest frequency.
- E. They will lock on the last frequency remembered in ram.

Answer: C

4. Which are HFC cable television forward path networks aligned to provide? (multiple answer)

- A. For asymmetrical gain since the downstream and upstream bandwidths are also asymmetrical
- B. For unity gain with a fixed input level and varying output levels adjusted by the selection of a fixed

value attenuator and equalizer at the output stage in each of the forward amplifiers in the network

C. For unity gain with a fixed output level and varying input levels adjusted by the selection of a fixed value attenuator & equalizer at the input stage of each of the forward amplifiers in the network

D. It is not necessary to align the forward path amplifiers since the CMTS will automatically compensate for forward path gain discrepancies.

E. For unity gain and are level compensated by automatic gain and slope control systems utilizing RF pilot reference carriers

Answer: CE

5. HFC cable television return path networks are aligned to provide: (multiple answer)

A. Asymmetrical gain since the downstream and upstream bandwidths are also asymmetrical

B. Unity gain with a fixed input level and varying output levels adjusted by the selection of a fixed value attenuator and equalizer at the output stage in each of the return amplifiers in the network

C. Unity gain with a fixed output level and varying input levels adjusted by the selection of a fixed value attenuator and equalizer at the input stage of each of the return amplifiers in the network

D. Cable modems the ability to power range comfortably within their output power dynamic range

E. It is not necessary to align the return path amplifiers since the CMTS will automatically adjust the cable modem transmit power levels.

Answer: BD

6. Cisco recommends the use of a headend-grade coaxial cable or a quad-shield coaxial cable with a minimum of 60% + 40% braid and double foil insulation to connect the cable modem cards to the HFC network. The center conductor must be straight and extend 1/8 inch (3.2 mm) beyond the end of the connector, and the connector should be securely crimped to the cable. Select three recommended cable types that can be used to connect the Cisco uBR7200 series universal broadband routers: (multiple answer)

A. RG 58

B. RG 59

C. RG 59/U

D. RG 6

E. RG 7

Answer: BCD

7. Given a PAL HFC and 8 MHz channel lineup in the downstream, is it possible to utilize 6 MHz DOCSIS cable modems and signals on the network?

- A. No, only 8 MHz channel spacing is available for Downstream data signals
- B. Yes, as long as the 6 MHz DOCSIS signal is within a valid 8 MHz channel
- C. Yes, as long as the DOCSIS signal is upconverted through a PAL upconverter
- D. No, DOCSIS cannot be mixed with EuroDOCSIS in the Downstream
- E. DOCSIS must be used only in an EIA-542 channel plans

Answer: B

8. In a cable HFC plant, which devices are modulators? (multiple answer)

- A. CMTS line card
- B. Upconverter
- C. Diplex filter
- D. Set top box
- E. Fiber node

Answer: AD

9. Unity gain is being used for alignment. The first amplifier from the node has 25 dB of gain and is 2000 feet away with cable loss of 1 dB per 100 feet. The node has an output of 35 dBmV at 55.25 MHz. What is the input at the amplifier?

- A. 13dBmV
- B. 3dBmV
- C. 15dBmV
- D. 27dBmV

Answer: C

10. There are two different headends with two different frequencies available sharing the same plant.

There is a -10dB cable loss to the second active in the cascade. What is the required pad for balancing

- A. A 0 pad
- B. A 1 pad
- C. A 2 pad
- D. A 3 pad
- E. A 4 pad
- F. A 5 pad

Answer: F

11. A DOCSIS 2-way data system is being designed to limit upstream traffic. Unknown modems should be kept from using precious Upstream bandwidth. Given these requirements, it should be ensured that the DOCSIS configuration file has what set?

- A. Vendor-specific information field
- B. Max-cpe should be set to 1
- C. CMTS authentication field should be set
- D. Network Access should be set to 0
- E. Downstream frequency should be set above 450 MHz

Answer: D

12. The name of the DOCSIS config file to download will be offered to the cable modem in what DHCP field?

- A. giaddr
- B. config-filename
- C. packet-filename
- D. siaddr

Answer: C

13. Every time a typing mistake is made at the exec prompt of a router, the message from the router indicates a lookup is being performed. Also, there is a waiting period of several seconds before the next command can be typed. Can this behavior be changed?

- A. No, this is a built in feature of Cisco IOS? software.
- B. Yes, use the no ip domain-lookup command.
- C. Yes, use the no ip helper-address command.
- D. Yes, use the no ip multicast helper-map command.
- E. Yes, use the no exec lookup command.

Answer: B

14. Upon deleting an IOS image file from flash, an execution of show flash shows the file still in flash, with a 'D' preceding it (as shown in the exhibit). What step must be taken in order to remove the file completely?

```
stllab-8510>sh bootflash
-#- ED --type-- --crc--- -seek-- nlen -length- -----date/time----- name
1  .. unknown 9DA13DA5 3576AC 31 3241516 Aug 22 1998 08:34:22 cat8510c-in
2  .D unknown 8CDE134F 453BA3 22 2494584 Jul 20 1997 09:33:02 cat8510b-in
```

- A. Erase the file from flash
- B. Format the flash device
- C. Replace the flash card - it is defective
- D. Execute a squeeze command on the flash device

Answer: D

15. What effect will this configuration command have?

```
line vty 0 4
```

```
no password vtypassword
```

A company has been assigned the Class B address of 191.8.0.0 by the NIC. They have decided to use a subnet mask of 255.255.255.0 and an autonomous system number of 1.

The configuration for Router A is as follows:

```
RouterA#show running-config
Current configuration:
version 11.3
1.) hostname RouterA
2.) enable-password enablepassword
3.) interface ethernet 0
4.) ip address 191.8.1.1 255.255.255.0
5.) no mop enabled
6.) interface serial 0
7.) ip address 191.8.150.1 255.255.255.0
8.) ip name-server 255.255.255.255
9.) ip host RouterB 191.8.150.2 191.8.2.1
10.) snmp-server community ccie
11.) line vty 0 4
12.) login
13.) line con 0
14.) line aux 0
15.) line vty 0
16.) password vtypassword
17.) line vty 1
18.) password vtypassword
19.) line vty 2
20.) password vtypassword
21.) line vty 3
22.) password vtypassword
23.) line vty 4
24.) password vtypassword
25.) end
RouterA#
```

The configuration for Router B is as follows:

```
RouterB#show running-config
Current configuration:
version 11.3
1.) hostname RouterB
2.) enable-password san-fran
3.) interface tokenring 0
4.) ip address 191.8.2.1 255.255.255.0
5.) ring-speed 16
6.) interface serial 0
7.) ip address 191.8.150.2 255.255.255.0
8.) ip name-server 255.255.255.255
9.) ip host A 191.8.2.1 191.8.150.1
10.) snmp-server community ccie
11.) logging buffered
12.) line vty 0 4
13.) login
14.) line con 0
15.) line aux 0
16.) line vty 0
17.) password cisco
18.) line vty 1
19.) password cisco
20.) line vty 2
21.) password cisco
22.) line vty 3
23.) password cisco
24.) line vty 4
25.) password cisco
26.) end
RouterB#
```

- A. All telnet connections to the router will be denied.
- B. Only one telnet connection at the router will be allowed at a time.
- C. Virtual terminal sessions will not be able to enter enable mode.
- D. Virtual terminal sessions will not be asked a user-level password.
- E. It will have no effect.

Answer: A

16. For an OC-48 signal (2.5Gb/s), what is the BER (bit error rate) if there is 1 bit error every four days?

- A. 10E-12
- B. 10E-13
- C. 10E-14
- D. 10E-15
- E. 10E-16

Answer: D

17. For communications systems what describes the over-all health of the system?

- A. Bit-Error-Rate (BER)
- B. Synchronous Optical NETWORK (SONET)
- C. Optical Signal to Noise Ratio (OSNR)
- D. None of the above

Answer: A

18. What is NOT an ATM class of service?

- A. CBR
- B. VBR-t
- C. ABR
- D. UBR
- E. CAR

Answer: E

19. What describes a technique, used to encapsulate voice (NOT data) over ATM?

- A. RFC 1483
- B. LANE
- C. AAL-1
- D. RFC 1577

Answer: C

20. What is the purpose of rate decoupling for ATM transmission?

- A. It provides transparency between SONET and SDH.
- B. It converts higher-speed DS3/E3 to lower-speed optical rates.
- C. It processes the packing and unpacking of frames into 53-octet cells.
- D. It allows lower-speed traffic on an ATM facility without causing traffic gaps.

Answer: D