Assessment Response

Title:Charter fiber module assessment

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Total Score: 40
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Description:
This assessment is designed to evaluate your understanding of fiber optics and its various components. The exam will cover a comprehensive range of topics related to HFC Network basics ,including fiber workstream ,routing commands, Splice connections (splicing in Magellan),Wave division multiplexing, patch/term panels, circuit managing, termination of port address allocation, area specs, MOP, deliverables, Asbuilts . The assessment aims to gauge your proficiency in working with HFC Network and your ability to apply theoretical knowledge to practical scenarios on the Magellan tool.

Section1 : FIBER - ASBUILT

Max Score: 40

Question1: What must be done before changing fiber quantities for fiber sheaths already spliced?

Point:1

Option1: Change sheath model
Option2: Delete fiber sheath and replace with correct count
Option3: Update cross section
Option4: Un splice all connected fibers on either side of the sheath
Answer: Un splice all connected fibers on either side of the sheath

Question2: What are the 12 default fiber colors in correct order?

Point:1

Option1: Blue, orange, green, brown, slate, white, red, black, yellow, violet, rose, aqua.
Option2: Blue, orange, purple, indigo, red, yellow, burgundy, rose, pink, turquoise, white, grey.
Option3: Orange, blue, green, brown, red, black, yellow, violet, rose, aqua, slate, white.
Option4: Aqua, rose, violet, yellow, black, red, white, slate, brown, green, orange, blue.
Answer: Blue, orange, green, brown, slate, white, red, black, yellow, violet, rose, aqua.

Question3: Which of the following definitions best describes

Multiplexing?

Point:1

Option1: Splicing two fibers together
Option2: Replacing small pup splice can with a 450b splice can.
Option3: Multiple analog or digital signals are combined into one signal over a shared medium.
Option4: Doubling of the fiber quantity
Answer: Multiple analog or digital signals are combined into one signal over a shared medium.

Question4: True or False: Riser footage does not get added when placing fiber

Point:1

Option1: True
Option2: False
Answer: False

Question5: A splice case installed in the MPOE or common area in a commercial venue is commonly referred to as what?

Point:1

Option1: Transition splice
Option2: Right of way splice
Option3: Common splice
Option4: Commercial splice
Answer: Transition splice

Question6: The optical components used in a HFC node are commonly referred to as what?

Point:1

Option1: In and out
Option2: Upstream and Downstream
Option3: Lasers and Diodes
Option4: Receivers and transmitters
Answer: Receivers and transmitters

Question7: What pair of fibers should be used first in a new sheath (in most cases)?

Point:1

Option1: Blue and orange
Option2: Green and brown
Option3: Rose and aqua

Option4: Red and black
Answer: Blue and orange

Question8: How would you change the length of a fiber span?

Point:1

Option1: Inspector panel > edit tool.
Option2: Splice matrix window
Option3: Update support footage since they are linked.
Option4: Double click on fiber sheath > edit length
Answer: Update support footage since they are linked.

Question9: True or False: The "Process Powering" tool needs to be ran on fiber.

Point:1

Option1: True
Option2: False
Answer: False

Question10: What type of devices are FBTP’s, and Wick boxes considered in Magellan?

Point:1

Option1: Nodes
Option2: Splices
Option3: Cabinets
Option4: Support Structures
Answer: Nodes

Question11: What term describes how light is guided through the core of fiber optic strands?

Point:1

Option1: Speed of light
Option2: Glass transparency
Option3: Fusion
Option4: Index of refraction
Answer: Index of refraction

Question12: True or False: Slack Coils are installed to provide enough slack for the fiber tech to move the splice enclosure to a clean space and perform the necessary splicing.

Point:1

Option1: True

Option2: False
Answer: True

Question13: True or False: Fiber Nodes NEVER require more than one fiber connected in the housing.

Point:1

Option1: True
Option2: False
Answer: False

Question14: True or False: You can install two mux filters of the same frequency in sequence/series.

Point:1

Option1: True
Option2: False
Answer: False

Question15: Which of the following is the standard mux wavelength group for a 4-channel low mux card?

Point:1

Option1: 1430, 1450, 1470, 1490
Option2: 1510, 1530, 1550, 1570
Option3: 1470, 1490, 1510, 1530
Option4: 1470, 1510, 1550, 1590
Answer: 1470, 1490, 1510, 1530

Question16: True or False: Installing a ring cut splice case only requires enough slack looped fiber to perform the installation.

Point:1

Option1: True
Option2: False
Answer: False

Question17: How many fibers are in a standard buffer tube?

Point:1

Option1: 8
Option2: 10
Option3: 24
Option4: 12
Answer: 12

Question18: How many fibers are in a buffer tube with a 6ct cross section?

Point:1

Option1: 12
Option2: 24
Option3: 6
Option4: 18
Answer: 6

Question19: How many buffer tubes are in a 48ct sheath with a standard 12ct cross section?

Point:1

Option1: There are no sheaths that large.
Option2: 4
Option3: 12
Option4: 8
Answer: 4

Question20: How many customers can be served from a pair of 8 channel mux cards if each customer needs a RX & TX?

Point:1

Option1: 8
Option2: 16
Option3: 4
Option4: 2
Answer: 8

Question21: Where would you go to generate a Trace Report?

Point:1

Option1: Splice matrix window
Option2: Reports tool
Option3: Inspector panel
Option4: Circuit manager
Answer: Splice matrix window

Question22: What fiber equipment will have the Term Panel option when adding internals?

Point:1

Option1: Nodes and hybrids
Option2: All fiber equipment

Option3: Only headend
Option4: Headend and cabinets
Answer: Headend and cabinets

Question23: True or False: You can change the fiber count of a sheath without changing the fiber model.

Point:1

Option1: True
Option2: False
Answer: False

Question24: What fiber status indicates a working fiber connection? (Light passing through)?

Point:1

Option1: WK
Option2: SP
Option3: DK
Option4: Irrelevant
Answer: WK

Question25: True or False: There is a limit to the number of sheaths that can be spliced through a splice enclosure.

Point:1

Option1: True
Option2: False
Answer: True

Question26: True or False: There is no distance limit for transmitting light through fiber optic cables.

Point:1

Option1: True
Option2: False
Answer: False

Question27: A R.O.W. splice is most often installed outside of the target venue, either on a pole at the street/easement or in an easily accessible underground support structure. What does R.O.W. stand for?

Point:1

Option1: Return Optical Wave
Option2: Right Over Water
Option3: Redundancy Optical Wave

Option4: Right of Way
Answer: Right of Way

Question28: See the below picture ,choose the correct option for Splice matrix tool icon.

Point:1

a. 

b. 

c. 

d. 

Option1: A
Option2: B
Option3: C
Option4: D
Answer: A

Question29: True or False: Fiber needs support network in place before it can be drafted and starts with a device.

Point:1

Option1: True
Option2: False
Answer: True

Question30: Where would you go to place a Generic business class in Fiber work stream?

Point:1

Option1: Splice can
Option2: Headend
Option3: Node
Option4: Cabinet
Answer: Node

Question31: Splice reports are run from_____on fiber devices?

Point:1

Option1: Splice matrix Window
Option2: Inspector panel
Option3: Reports tool
Option4: Work Stream
Answer: Inspector panel

Question32: True or False: Fiber spans are more efficient; an entire node network can be serviced with 1 fiber without carrying the power and more data sent farther and faster.

Point:1

Option1: True
Option2: False
Answer: True

Question33: _____are the primary device used to split the fiber route and send various count sheaths father into the HFC network branching off the main tree or ring.

Point:1

Option1: Splice cans
Option2: Multiplexer
Option3: Slack coils
Option4: Fiber splitters
Answer: Splice cans

Question34: Which are the fiber devices used to service multiple clients in the same venue using a single muxed pair. This is often seen in dense cities, high-rise buildings, and venues with multiple different customers ?

Point:1

Option1: Splice cans
Option2: Multiplexer
Option3: Slack coils
Option4: Aggregate Switches
Answer: Aggregate Switches

Question35: True or False: Each individual fiber needs to be spliced to a continuing fiber to maintain the light circuit from Headend to termination (node, fiber tap or switch)?

Point:1

Option1: True

Option2: False
Answer: True

Question36: Which is the middle transition phase for data between where the signals start at the headend and where the signal ends at the customer?

Point:1

Option1: Transmitter
Option2: GPON
Option3: Fiber optics
Option4: Index of Refraction
Answer: Fiber optics

Question37: Which are the common devices used to terminate the client's fiber circuit. Usually placed in a data closet, server room or I.T room.

Point:1

Option1: Aggregate Switches
Option2: Nodes
Option3: Cell towers
Option4: Fiber termination Points (FBTP'S)
Answer: Fiber termination Points (FBTP'S)

Question38: Which are used in both Aerial and UG routes. Provides the fiber tech enough slack to remove a splice case from its support structure and complete the splicing in their enough splice truck, also allows for potential ring cup splice installations.

Point:1

Option1: Slack coils/Loops
Option2: Nodes
Option3: Splitters
Option4: Fiber termination Points (FBTP'S)
Answer: Slack coils/Loops

Question39: In which statuses of splice connections, light is received from headend on one fiber and continues the other fiber ?

Point:1

Option1: Spare (SP)
Option2: Dark (DK)
Option3: Reserved (RS)

Option4: Working (WK)
Answer: Working (WK)

Question40: Which is kind of optical filter used for WDM and/or Patch/ Term panels ?

Point:1

Option1: Circuit naming
Option2: Internals
Option3: Slack Coils
Option4: Splice cans
Answer: Internals

Result:

Section1: 5
Total Score: 5/40
Percentage: 13%.
Remarks: Switching of Tab's detected.
Result: NOT CLEARED