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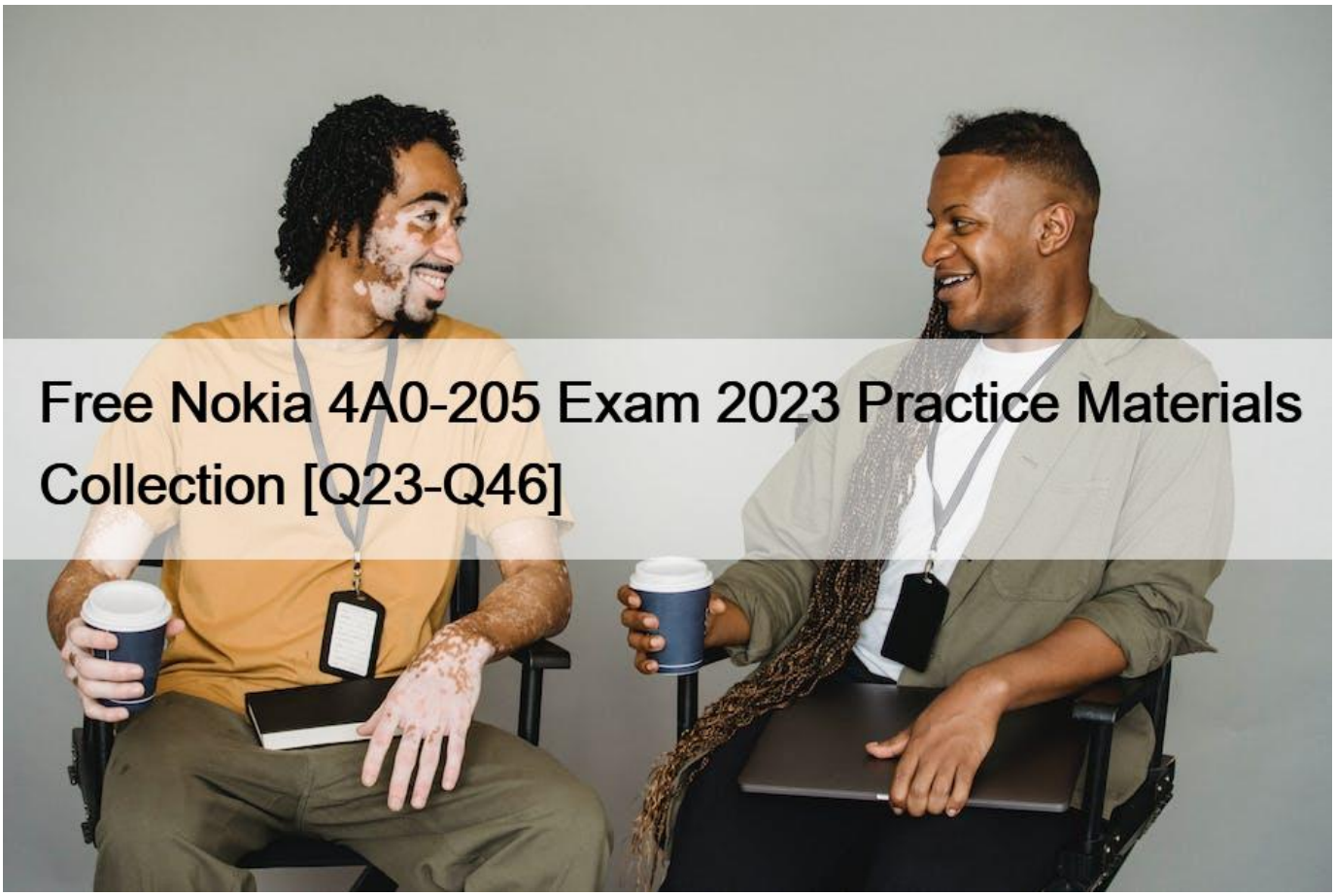

Free Nokia 4A0-205 Exam 2023 Practice Materials Collection 4A0-205 Exam Info and Free Practice Test All-in-One Exam Guide Apr-2023 QUESTION 23

Is it possible to mix PSS-24x and PSS-8x shelves In an SWDM configuration?
* Yes, as both can be equipped within the same node
* No, as they are not compatible and cannot be used within the same node
* Yes, but the PSS-24X shelf must be configured as a master
* Yes, but the PSS-8X shelf must be configured as a master

No, it is not possible to mix PSS-24x and PSS-8x shelves in an SWDM (Short Wavelength Division Multiplexing) configuration. The two shelves are not compatible, and cannot be used within the same node.

QUESTION 24

Which of the following are the main reasons for fiber attenuation?
* Refraction and reflection
* Scattering and absorption
* Chromatic dispersion (CD) and polarization mode dispersion
* Small channel spacing

Scattering and absorption are the main reasons for fiber attenuation. Scattering occurs when light bounces off the sides of the fiber, while absorption happens when light is absorbed by the glass or other materials that make up the fiber. Chromatic dispersion (CD) and polarization mode dispersion (PMD) are also factors that can cause attenuation, but they are not the main causes. Small channel spacing can also cause attenuation, but it is a secondary factor and is only significant in certain cases.

QUESTION 25

In which window(s) does the attenuation reach its minimum peak?
* First window (850 nm)
* Second window (1300 nm)
* Third window (1550 nm)
* Both first and second windows

The third window (1550 nm) is where the attenuation reaches its minimum peak. This is because the materials used in fiber optic cables have minimal absorption in this wavelength range. The first and second windows (850 nm and 1300 nm respectively) have higher attenuation due to the materials used in the fiber optic cables.

QUESTION 26

WDM allows transmission systems to:
* Transport multiple signals transparently, onto several wavelengths, all together over one single fiber
* Increase the bit rate of each client signal by spreading it over multiple wavelengths
* Share a single signal among multiple fibers doing load balancing, and thus increasing the reliability of the optical transmission
* Allocate different signals to different time slots

WDM (Wavelength Division Multiplexing) allows transmission systems to transport multiple signals transparently, onto several wavelengths, all together over one single fiber. This allows for increased capacity, as many different signals can be transmitted at the same time and along the same fiber. Other advantages include improved signal integrity and reduced signal attenuation.

QUESTION 27

Which mechanisms can be put in place to increase network survivability?
* Protection, where backup resources are pre-allocated and reserved; or restoration, where each trail can be recovered thanks to a 1+1 protection mechanism
* Protection, where backup resources are allocated upon failure; or restoration, where each trail can be recovered thanks to a 1+1 protection mechanism
* Protection, where backup resources are allocated upon failure; or restoration, where backup resources are pre-allocated and reserved
* Protection, where backup resources are pre-allocated and reserved; or restoration, where backup resources are allocated upon failure.

There are two main mechanisms that can be put in place to increase network survivability: protection and restoration. Protection involves pre-allocating and reserving backup resources so that they are ready in case of a failure. Restoration involves allocating backup resources upon failure and using a 1+1 protection mechanism to recover each trail. This ensures that the network is able to re-route traffic in the event of a failure, increasing the overall survivability of the network.

QUESTION 28

What is the purpose of the NFM-T node synchronization?
* The partial or full node synchronization allows several entities/items defined at node level to be retrieved into the NFM-T database (upload).
* The partial or full node synchronization allows several entities/items defined at NFM-T level to be written into the node database (download).

* The partial or full node synchronization allows several entities/items defined at EPT level to be retrieved into the NFM-T database (upload from design).
* The partial or full node synchronization allows several entities/items defined at NFM-T level to be exported into an XML file, to be used as input for EPT (download to design).

This is done in order to keep the NFM-T database in sync with the nodes in the network. The synchronization process allows the NFM-T to keep track of any changes that are made to the nodes, such as new nodes added, nodes removed, and so on. By synchronizing the node database with the NFM-T, network administrators can ensure that their network is up to date and running efficiently.

QUESTION 29

Which of the following sentences about FlexGrid is false?
* FlexGrid allows a more efficient channel spacing.
* Channels in FlexGrid systems are allocated with a granularity of 27.5GHz.
* FlexGrid systems use specific sets of boards. Old generation WDM systems need to be upgraded to support FlexGrid.
* The FlexGrid is currently standardized by ITU-T.

FlexGrid is a flexible grid technology that allows for variable channel spacing and bandwidth allocation. It uses the same sets of boards as the traditional fixed grid systems and it does not require upgrading the old generation WDM systems.

Reference:

“Flexible Grid Optical Networks: From Concepts to Realizations” by Diomidis S. Michalopoulos and George K. Karagiannidis

“Flexible Grid and Flexible Spectrum Optical Networks” by Diomidis S. Michalopoulos and George K. Karagiannidis

“Flexible Grid Optical Networks” by Diomidis S. Michalopoulos and George K. Karagiannidis

QUESTION 30

Which of the following is an example of optical protection mechanism?
* Optical regeneration (e.g., back-to-back regeneration)
* OSNCP (e.g., via Y-cable or OPS card)
* GMPLS-enabled SBR
* GR and SBR combined

It can be implemented through the use of a Y-cable or an optical protection switch (OPS) card, which allows for the switching of traffic to a secondary path in the event of a failure on the primary path. This type of protection is commonly used to protect against fiber cuts and other types of physical layer failures in the optical transport network.

QUESTION 31

What is a trail?
* An entity to encapsulate a low order signal into a high order container
* A transparent transport of a client signal
* A link between end points to increase the power budget of the optical link
* A physical link between two optical amplifiers

A trail is a transparent transport of a client signal. A trail is a physical link between two points in an optical network, allowing for the transport of a client signal from one point to the other. It is a low-order signal, such as a 10G Ethernet or a Fibre Channel signal, encapsulated into a high-order container, such as a 40G or 100G signal. This allows for the transport of the client signal over longer

distances, increasing the power budget of the optical link.

QUESTION 32

Which statement is correct about the NFM-T network map?
* It automatically represents all nodes grouped by the location string assigned during the NE creation.
* It represents all supervised nodes grouped by alarm status (with a different color).
* It allows context sensitive navigation and represents nodes and related physical connections with different colors. depending on the active alarms.
* It allows the graphical visualization of the services deployed in the network with the details of the boards involved in the service.
The NFM-T network map provides a graphical view of the network with different colors used to represent each node, physical connection, and active alarm. It allows the user to quickly identify any issues in the network and provides context sensitive navigation.

QUESTION 33

Which sentence about NFM-T is correct?
* NFM-T fully supports LO, LI, L2 and GMPLS applications and it is mainly focused on 1830 PSS, as well as other older product families
* NFM-T fully supports optical and IP nodes
* NFM-T is used to design and manage optical network
* NFM-T is used to provision optical services having IP nodes as extremities
NFM-T is a network management system designed to manage optical networks in a unified manner. It is used to design, manage, and provision optical services having IP nodes as extremities. It supports a variety of technologies, including optical and IP, and fully supports LO, LI, L2, and GMPLS applications. It is mainly focused on the Nokia 1830 PSS product family, as well as other older product families.

QUESTION 34

What is the OAMP LAN interface?
* It is an RJ-45 interface (a common Ethernet port) used for cascading 1830 PSS nodes (e.g., external shelves)
* It is an RJ-45 interface (a common Ethernet port) that has to be configured with an IP address for node reachability and management
* It is an RJ-45 interface (common Ethernet port) used to connect one or more client ports (e.g., 1Gb/s or legacy 100Mbit/s client flows)
* It is an RJ-45 interface (a common Ethernet port) used to export active alarms to an external device, typically equipped with several LEDs
It is an RJ-45 interface (a common Ethernet port) that has to be configured with an IP address for node reachability and management. This interface is used to connect the OAMP node to the LAN, allowing it to be managed and monitored remotely.

QUESTION 35

What is the meaning of first, second, and third window in the optical fiber propagation context?
* These windows correspond to three different minimum and maximum optical power levels used for optical transmission.
* These windows are three different wavelength intervals where the WDM optical transmission occurs.
* These three windows are three different angles of incidence of the light injected by the laser into the fiber.
* Different optical transmission windows correspond to different safety requirements and rules for the related lasers operating with these windows.
In optical fiber propagation context, the first, second, and third window refer to different wavelength intervals where the WDM (Wavelength Division Multiplexing) optical transmission occurs.

The first window is the lowest loss window and is typically in the range of 1300-1324nm. This is the most commonly used window for long-haul communications.

The second window is the 1550 nm window and is the most widely used window for long-haul and ultra-long-haul communications. This window has a lower attenuation than the first window, but it also has more dispersion, which can limit the maximum transmission distance.

The third window is the range of 1625-1675 nm, it is also called the L-band window. This window has lower attenuation than the first and second window but its usage is limited due to the high cost of equipment and lack of commercial devices.

These windows are used in WDM systems to increase the capacity of the fiber by transmitting multiple channels of data at different wavelengths on the same fiber.

A,C,D are not correct as they are not related to the meaning of first, second, and third window in the optical fiber propagation context.

Reference:

Nokia Optical Networking Fundamentals, Nokia Press (ISBN:978-1-4822-8109-4)

https://www.nokia.com/networks/solutions/optical-networking/

https://en.wikipedia.org/wiki/Wavelength-division_multiplexing

QUESTION 36

Which use case is most suitable for the deployment of a star topology?
* Access networks, for collecting traffic towards the main central node
* ASON networks, to protect traffic via GMPL5 protocols
* Backbone networks, for supporting protection routes
* SNCP-protected links

A star topology is a network design where all devices are connected to a central hub, which acts as a central point of control and management for the network. This type of topology is commonly used in access networks, where a central node is used to aggregate traffic from multiple users or devices, and then forward it to the core network. This design allows for efficient use of resources and easy management of the network.

Reference:

“Computer Networking: A Top-Down Approach” by James Kurose and Keith Ross (Chapter 3)

“Data Communications and Networking” by Behrouz A. Forouzan (Chapter 2)

QUESTION 37

A user needs to check for interface details against the commands is the correct one?
* config interface detail 1/17/L1
* config card 11star1a interface 1/17 detail
* show interface 11starla 1/17/L1 detail
* 11starla 1/17 port-detail

show interface 11starla 1/17/L1 detail is the correct command to check for interface details. This command will display detailed information about the specified interface, including its status, configuration, and statistics.

QUESTION 38

A user needs to check for interface details against the commands is the correct one?
* show interface 11starla 1/17/L1 detail
* config card 11star1a interface 1/17 detail
* 11starla 1/17 port-detail
* config interface detail 1/17/L1

show interface 11starla 1/17/L1 detail is the correct command to check for interface details. This command will display detailed information about the specified interface, including its status, configuration, and statistics.

QUESTION 39

Is it possible to select the fiber type independently for each segment while designing a network in EPT?
* Yes, during the link creation through the wizard
* No, a unique type is allowed per design for all segments
* No, as the fiber type is selected for links only and it’s one for whole design
* Yes, during the segment creation phase or editing

Yes, during the segment creation phase or editing. It is possible to select the fiber type independently for each segment while designing a network in EPT. This can be done during the segment creation phase or when editing an existing segment. This allows for more flexibility when designing the network and allows for more efficient use of resources.