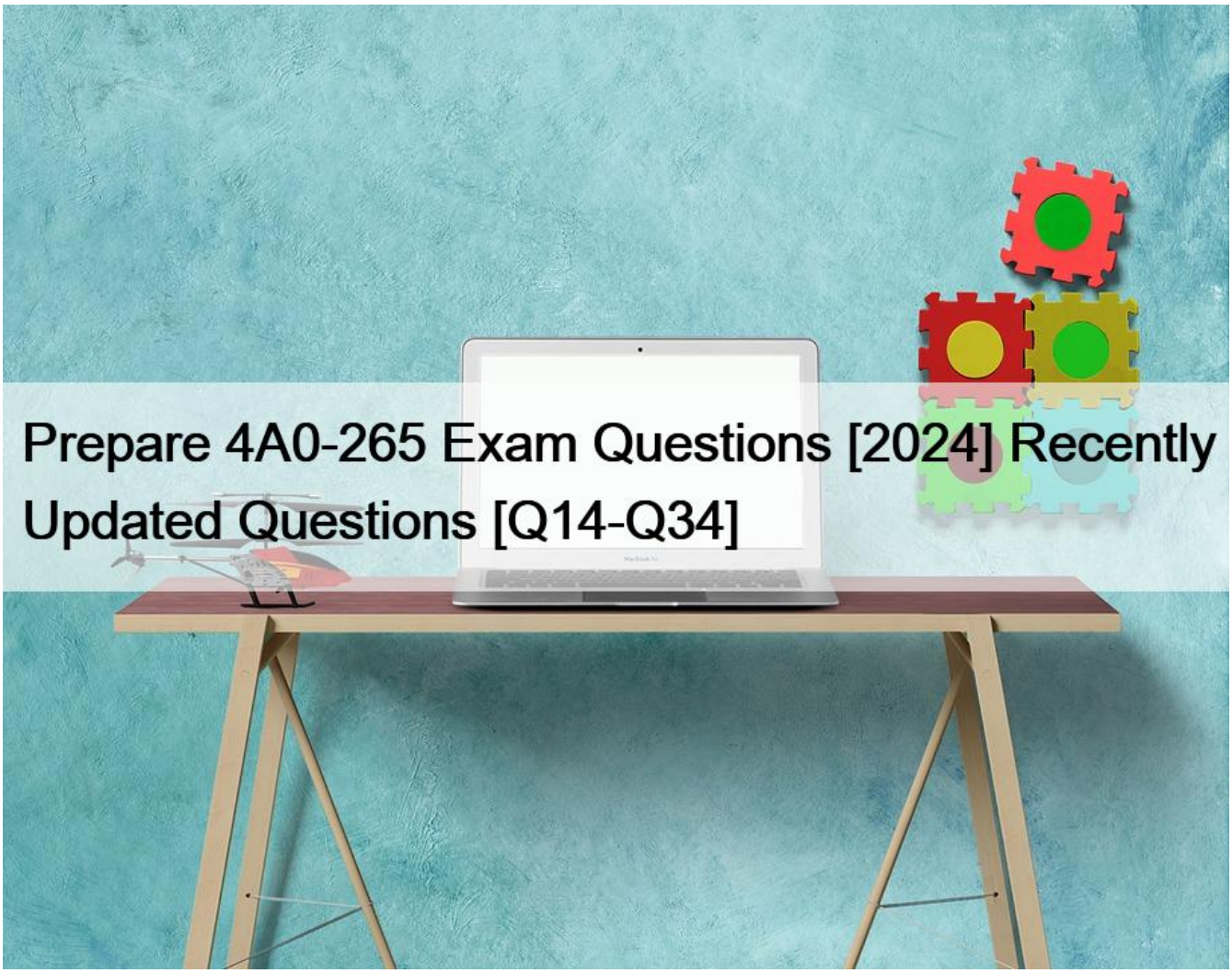
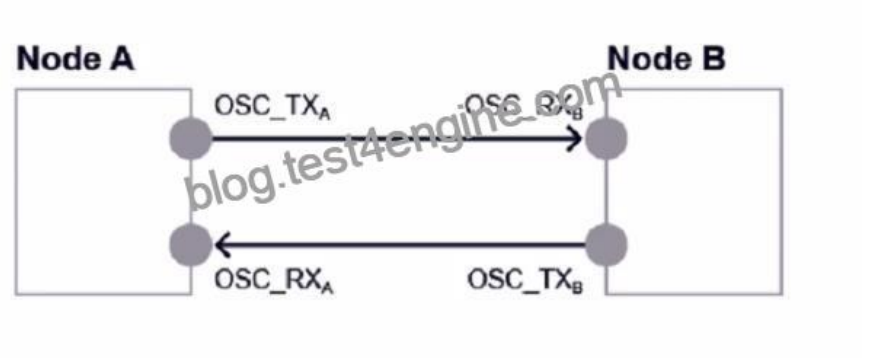
Prepare 4A0-265 Exam Questions [2024 Recently Updated Questions [Q14-Q34



Prepare 4A0-265 Exam Questions [2024 Recently Updated Questions Give push to your success with 4A0-265 exam questions Q14. Consider the exhibit. Given the following power readings, what is the calculated span loss from Node A to Node B?

- OSC_TX_A = +5.5
- OSC_RX_A = -4.5
- OSC_RX_B = -2.5
- OSC_TX_B = +7.0



* 11.5
* 8.0
* 2.5
* 1.5

Explanation

The exhibit shows a diagram of a network with two nodes, Node A and Node B, connected by a fiber span.

The diagram also shows the power readings at different points of the span. The calculated span loss from Node A to Node B is the difference between the output power at Node A and the input power at Node B. According to the diagram, the output power at Node A is +3.5 dBm and the input power at Node B is -4.5 dBm.

Therefore, the span loss from Node A to Node B is 3.5 – (-4.5) = 8.0 dB.

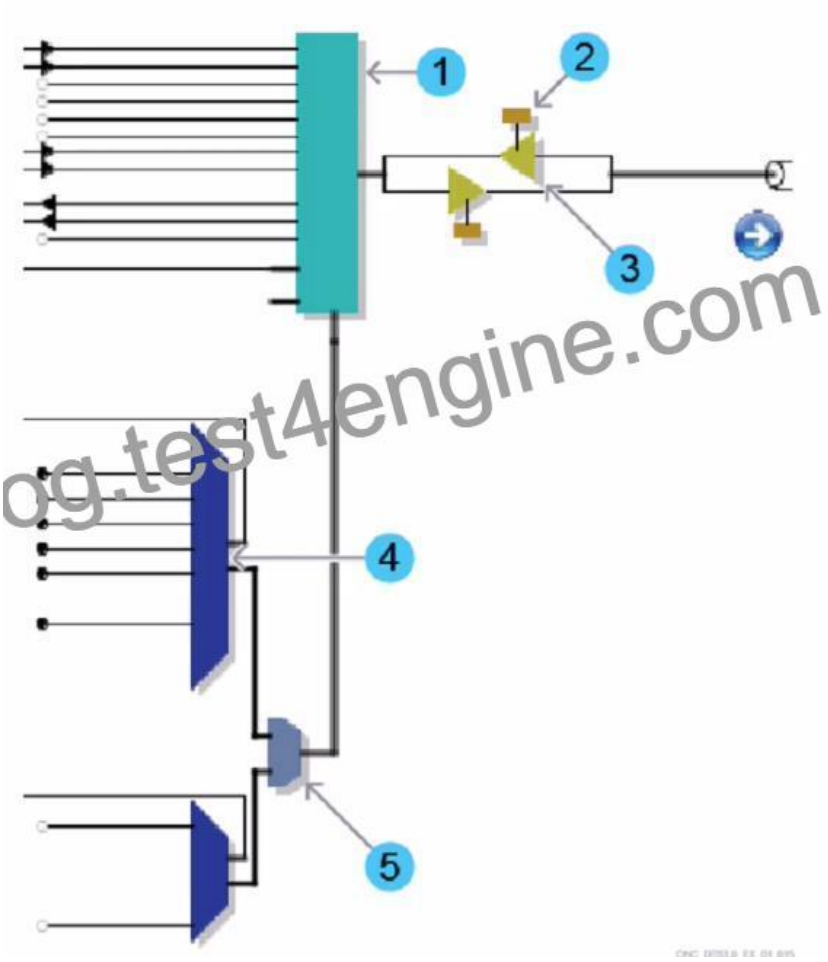
Q15. On a bidirectional optical amplifier configuration, which of the following are Wavelength Tracker detection points?

* LINEOUT and SIGOUT interfaces.
* SIG interface only.
* LINE and SIG interfaces.
* An optical amplifier has no Wavelength Tracker detection points.

Explanation

On a bidirectional optical amplifier configuration, the Wavelength Tracker detection points are the LINE and SIG interfaces. The Wavelength Tracker is a feature that monitors the wavelength of each channel on the optical amplifier and provides feedback to the control system. The Wavelength Tracker can detect wavelength drifts, channel failures, or channel additions or removals on both directions of the optical amplifier. The LINE interface is the input/output port for the optical line signal, while the SIG interface is the input/output port for the optical signal from/to the transponder. The other options are incorrect because the LINEOUT and SIGOUT interfaces are not Wavelength Tracker detection points, and an optical amplifier has Wavelength Tracker detection points. References: Nokia Optical Diagnostics and Troubleshooting Course, OAM and Diagnostics Guide

Q16. Consider the exhibit which shows part of an EPT Schematic View. Which number refers to the Wavelength Router (WR8-88) block?



* 1
* 2
* 3
* 4
* 5

Explanation

The Wavelength Router (WR8-88) block is a device that can route optical signals based on their wavelengths.

It can also perform wavelength conversion, multiplexing, and demultiplexing functions. The Wavelength Router (WR8-88) block is part of the Nokia 1830 PSS-8x platform, which is optimized for metro aggregation switching applications in optical transport networks1. In the exhibit, the number 1 refers to the Wavelength Router (WR8-88) block, as indicated by the label WR8-88AF. The other numbers refer to different components of the system, such as transponders, amplifiers, and switches. References: Nokia Optical Diagnostics and Troubleshooting Course, DWDM 1830 PSS-8 WR8-88AF Board

Q17. Which of the following statements best describes the Forward Error Correction (FEC) technique?

* FEC enables errors to be detected and data to be retransmitted. This technique is effective only above a specified OSNR threshold.
* FEC enables errors to be detected and data to be retransmitted. This technique is effective only below a specified OSNR threshold.
* FEC enables errors to be detected and corrected without retransmission. This technique is effective only above a specified OSNR threshold.
* FEC enables errors to be detected and corrected without retransmission. This technique is effective only below a specified OSNR

threshold.
Explanation

The statement that best describes the Forward Error Correction (FEC) technique is C. FEC is a technique used in digital communication to improve the accuracy and reliability of data transmission. By adding redundant information to the transmitted data, FEC enables the receiver to detect and correct errors without retransmission or other error correction techniques11. FEC is effective only above a specified OSNR threshold, which is the minimum optical signal-to-noise ratio required for error-free transmission with FEC enabled. If the OSNR falls below this threshold, FEC cannot correct all errors and data quality degrades significantly. References : Nokia Optical Diagnostics and Troubleshooting Course | Nokia, Optical User Guide

– Nokia, Forward Error Correction (FEC) – Online Tutorials Library

Q18. Which of the following correctly describes how a unidirectional amplification stage works?
* * Incoming optical signals are boosted by the ingress amplifier.

* Outgoing optical signals do not pass through the ingress amplifier.
* * Incoming optical signals are boosted by the ingress amplifier.

* Outgoing optical signals pass through the ingress amplifier but are not boosted.
* * Incoming optical signals pass through the ingress amplifier but are not boosted.

* Outgoing optical signals are boosted by the ingress amplifier.
* * Incoming optical signals are boosted by the ingress amplifier.

* Outgoing optical signals are also boosted by the ingress amplifier.
Explanation

A unidirectional amplification stage works by boosting the incoming optical signals by the ingress amplifier, while the outgoing optical signals do not pass through the ingress amplifier. This means that the ingress amplifier only amplifies the signals in one direction, hence the name unidirectional. This configuration is typically used for point-to-point links or ring networks where bidirectional amplification is not required or desired1. References : Nokia Optical Diagnostics and Troubleshooting Course | Nokia

Q19. Suppose a channel-related alarm is reported on an 1830 PSS node, and is related to a possible Wave Keys clock source issue. What is the recommended order for the following troubleshooting steps?
* 1. Retrieve the channel power trace.

2. Determine the active clock reference source.

3. Switch to alternate clock source (PF).

4. Replace the suspect PF.
* 1. Retrieve the channel power trace.

2. Replace the suspect PF.

3. Determine the active clock reference source.

4. Switch to alternate clock source (PF).
* 1. Determine the active clock reference source.

2. Replace the suspect PF.

3. Retrieve the channel power trace.

4. Switch to alternate clock source (PF).
* 1. Replace the suspect PF.

2. Retrieve the channel power trace.

3. Switch to alternate clock source (PF).

4. Determine the active clock reference source.
Explanation

The recommended order for the troubleshooting steps is A, as follows:

* Retrieve the channel power trace. This step is useful to identify the affected channel and its power level, as well as to check if there are any fluctuations or anomalies in the power trace that could indicate a clock source issue1.

* Determine the active clock reference source. This step is necessary to verify which clock source is currently used by the node, and if it matches the expected configuration. The clock source can be either a local oscillator (LO) or a phase-locked loop (PLL) that synchronizes with an external reference2. The active clock source can be determined by using the command show interface ot 1/1/lineout detail3.

* Switch to alternate clock source (PF). This step is helpful to isolate the problem and confirm if the suspect PF is indeed causing the channel-related alarm. By switching to an alternate clock source, such as another PF or an external reference, the node can recover from the alarm if the original clock source was faulty4.

* Replace the suspect PF. This step is the final solution to resolve the issue and restore the normal operation of the node. The suspect PF should be replacedwith a new one that has the same specifications and configuration as the original one5. References : Nokia Optical Diagnostics and Troubleshooting Course | Nokia, Optical User Guide – Nokia, Alcatel-Lucent 1830 PSS-8 and PSS-16 Photonic Service Switch

Q20. Which of the following issues can cause a “Loss too low” message to be displayed after a power adjustment has been provided?
* Unstable optical power levels
* A dirty fiber connector
* An incorrect EPT network design
* A defective WSS unit
Explanation

A “Loss too low” message can be displayed after a power adjustment has been provided if there is an issue with unstable optical power levels. Unstable optical power levels can be caused by various factors, such as environmental conditions, fiber aging, equipment malfunction, or configuration errors. Unstable optical power levels can affect the accuracy and reliability of the power adjustment process, which relies on measuring the optical loss between two points in the network. A “Loss too low” message means that the measured optical loss is lower than the expected value, which can indicate a problem with the optical signal quality or integrity.

The other issues are incorrect because they either cause a different type of message or do not affect the power adjustment process. References: Nokia Optical Diagnostics and Troubleshooting Course, OAM and Diagnostics Guide

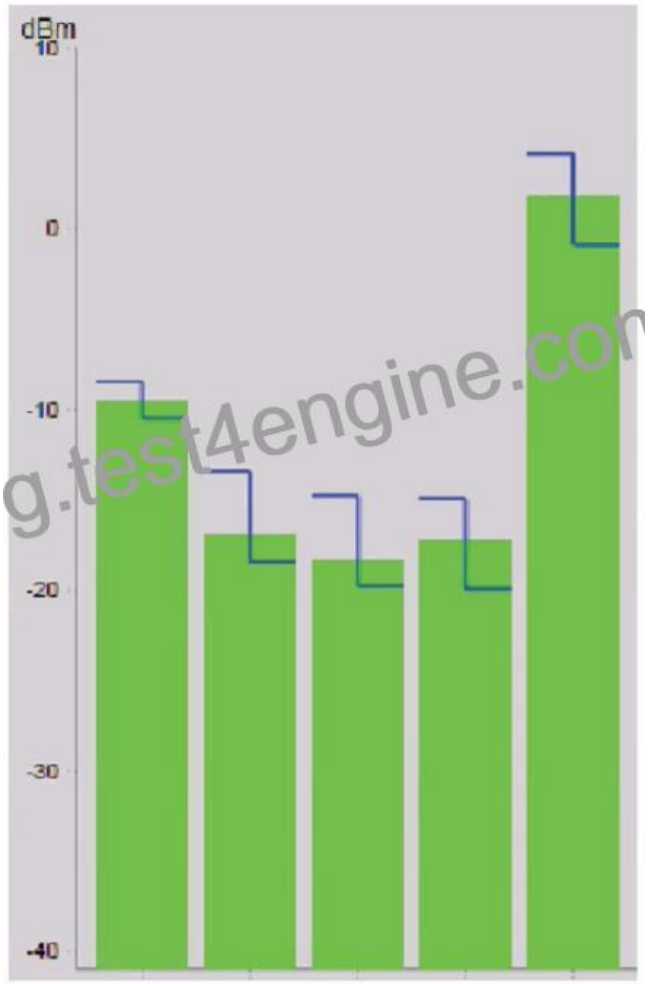
Q21. Suppose a network operator needs to configure the 10GbE client interface 1/7/C1 with a GFP-F encapsulation mode. Which command should be used?

* config interface 1/7/C1 tenGige encmode gfp-f
* config encmode interface 1/7/C1 10client gfp-f
* config interface 1/7/C1 encmode 10client gfp-f
* config encmode interface 1/7/C1 tenGige gfp-f

Explanation

The command that should be used to configure the 10GbE client interface 1/7/C1 with a GFP-F encapsulation mode is config interface 1/7/C1 encmode 10client gfp-f. This command will set the encapsulation mode of the interface to GFP-F, which is a frame-mapped generic framing procedure that encapsulates Ethernet frames with a GFP header. The command also specifies that the interface is a 10GbE client interface, which means that it supports 10 Gigabit Ethernet LAN signals. The other commands are incorrect because they either have invalid syntax or use incorrect parameters for the interface or the encapsulation mode. References: Nokia Optical Diagnostics and Troubleshooting Course, OAM and Diagnostics Guide

Q22. Consider the exhibit. What do the different colored green columns indicate?



* Optical power levels measured multiple times against a specific interface, at 24-hour intervals for the same wavelength.
* Optical power levels measured for multiple wavelengths against a specific interface.
* Optical power levels measured at different interfaces throughout the optical path of a single wavelength.

* The average optical power levels measured for multiple wavelengths throughout their shared optical path.
Explanation

The exhibit shows a graph of optical power levels measured at different interfaces throughout the optical path of a single wavelength. The different colored green columns indicate the optical power levels at different points along the optical path, such as the transmitter, the receiver, and the amplifiers. The graph also shows the expected power levels and the allowed deviation range for each point. The graph can be used to monitor the performance and quality of the optical signal and to identify any potential issues or anomalies. The other options are incorrect because they either describe a different type of graph or do not match the exhibit.
References: Nokia Optical Diagnostics and Troubleshooting Course, OAM and Diagnostics Guide

Q23. Which of the following statements best describes the output of the command: show xc 1?
* OCH trail name, ITU channel, administrative/operational states, protection states, and Wave Keys for both directions.
* A list of cross-connections, including A-end, Z-end, frequency, ID number, OCH trail name, and administrative/operational states.
* A list of boards that this cross-connection passes through on the local node, along with administrative/operational states, expected power levels, and measured power levels.
* A list of all boards on all nodes that this cross-connection passes through, along with expected power levels, measured power levels, and allowed power deviations.
Explanation

The command show xc 1 displays a list of cross-connections, including A-end, Z-end, frequency, ID number, OCH trail name, and administrative/operational states. A cross-connection is a logical connection between two ports on an optical network element that allows the transmission of an optical signal from one port to another.

The command can be used to view the configuration and status of the cross-connections on a node or a network. The other options are incorrect because they either describe a different command or provide incorrect information. References: Nokia Optical Diagnostics and Troubleshooting Course, OAM and Diagnostics Guide

Q24. Suppose a Raman amplifier has been plugged into slot 1/8. Which command should the user enter to retrieve the total optical power detected at the ingress interface?
* show interface 1/8 opin
* show interface 1/8 power
* show Interface 1/8/LINEIN
* show interface 1/8/UNEIN detail
Explanation

The command show interface 1/8/UNEIN detail is used to retrieve the total optical power detected at the ingress interface of a Raman amplifier. This command displays detailed information about the UNEIN interface, which is the unidirectional east input interface of the Raman amplifier. The total optical power detected at the UNEIN interface is shown as Input Power (dBm) in the output of this command1. References : Nokia Optical Diagnostics and Troubleshooting Course | Nokia

Q25. Which of the following is a passive component in a CDC-F network configuration?
* 130SCX10 Optical Transponder
* MSH4-FSB Fiber Shuffle Module
* WR20-TFM Wavelength Router
* IRDM20 Integrated ROADM
Explanation

A passive component in a CDC-F network configuration is the MSH4-FSB Fiber Shuffle Module. This module is used to rearrange the fibers between the CDC-F modules and the wavelength routers, so that each wavelength router can access any of the 96 wavelengths in the C-band. The MSH4-FSB module does not require any power or active components, and it does not perform any

optical amplification or switching2. References : Nokia Optical Diagnostics and Troubleshooting Course | Nokia, Nokia 1830 Photonic Service Switch (PSS) | Nokia

Q26. Which of the following statements about the “config powermgmt egress 1/2 adjust status command” is TRUE?
* The command displays the status of power adjustment on the specified egress amplifier.
* The command enables power adjustment feature on the specified egress amplifier, as this feature Is always and only available at the egress amplification stage.
* The command enables power adjustment feature on the specified egress amplifier.
* The command displays commissioning status and WT decoder usage for the specified egress amplifiers only, as this feature is always and only done in the egress direction.
Explanation

The command config powermgmt egress 1/2 adjust status is used to enable or disable the power adjustment feature on the specified egress amplifier. The power adjustment feature is a function that automatically adjusts the output power of an amplifier to compensate for changes in the input power or the number of channels. This feature can be enabled or disabled on both ingress and egress amplifiers, depending on the network configuration and requirements1. Therefore, the statement C is true. References : Nokia Optical Diagnostics and Troubleshooting Course | Nokia

Q27. Which of the following statements correctly describes where power adjustments can be performed?
* In bidirectional configurations, ingress power adjustments are performed against the ingress amplifiers, while egress power adjustments are performed against the egress amplifiers.
* In bidirectional configurations, both ingress and egress power adjustments are performed against the ingress amplifiers only.
* In unidirectional configurations, both ingress and egress power adjustments are performed against the ingress amplifiers only.
* When Raman pumps are used, both ingress and egress power adjustments are performed against the Raman pump directly.
Explanation

In bidirectional configurations, where the same fiber is used to transmit signals in both directions, power adjustments can be performed at both ingress and egress amplifiers. The ingress power adjustments are performed against the ingress amplifiers, which boost the incoming signals from the opposite direction. The egress power adjustments are performed against the egress amplifiers, which boost the outgoing signals from the same direction2. Therefore, the statement A is correct. References : Nokia Optical Diagnostics and Troubleshooting Course | Nokia, Optical amplifiers, explained by RP; optical amplification

Q28. Which of the following statements best describes the payload type setting?
* Payload type attribute is recorded within the client payload and must be entered manually.
* Payload type attribute Is recorded within the client payload and can be set automatically.
* Payload type attribute is recorded within the OTN overhead and must be entered manually.
* Payload type attribute is recorded within the OTN overhead and can be set automatically or manually.
Explanation

The payload type setting is an attribute that is recorded within the client payload and can be set automatically or manually. The payload type setting indicates the type of client signal that is carried by the OTN frame, such as Ethernet, Fibre Channel, or SDH/SONET. The payload type setting can be used for service identification and performance monitoring purposes. The payload type setting can be set automatically by the ML-Series card, which can detect the client signal type and encode it in the payload header. Alternatively, the payload type setting can be set manually by the user using the command config interface <interface> encmode

<encmode> payloadtype <payloadtype>, where <interface> is the client interface name, <encmode> is the encapsulation mode, such as GFP-F or BMP, and <payloadtype> is the client signal type, such as 10GE LAN or FC-1200. The other options are incorrect because they either state that the payload type setting is recorded within the OTN overhead, which is not true, or that it must be entered manually, which is not necessary. References: Nokia Optical Diagnostics and Troubleshooting Course, OAM and

Diagnostics Guide

Q29. Which of the following statements best describes the output of the CLI command: show wavekey wtmonitor

1/6/LINE summary?
* A list of all channels detected against the selected interface (in and out); it shows if a Wave Keys pair is expected, if a Wave Keys pair is received, and if the received Wave Keys pair is unexpected.
* A list of all channels on this interface for which any Wave Keys pair is being received.
* A list of all channels detected against the selected interface, including Wave Keys pair, channel status, expected and measured power, allowed deviation, and tolerance.
* A list of the unexpected channels detected against the selected interface.

Explanation

The command show wavekey wtmonitor 1/6/LINE summary displays a list of all channels detected against the selected interface (in and out); it shows if a Wave Keys pair is expected, if a Wave Keys pair is received, and if the received Wave Keys pair is unexpected. A Wave Keys pair is a pair of unique identifiers that are transmitted along with an optical channel to provide channel identification and monitoring functions. The command can be used to verify the presence and correctness of the Wave Keys pairs on an interface and to detect any mismatch or misconfiguration. The other options are incorrect because they either describe a different command or provide incorrect information. References: Nokia Optical Diagnostics and Troubleshooting Course, OAM and Diagnostics Guide