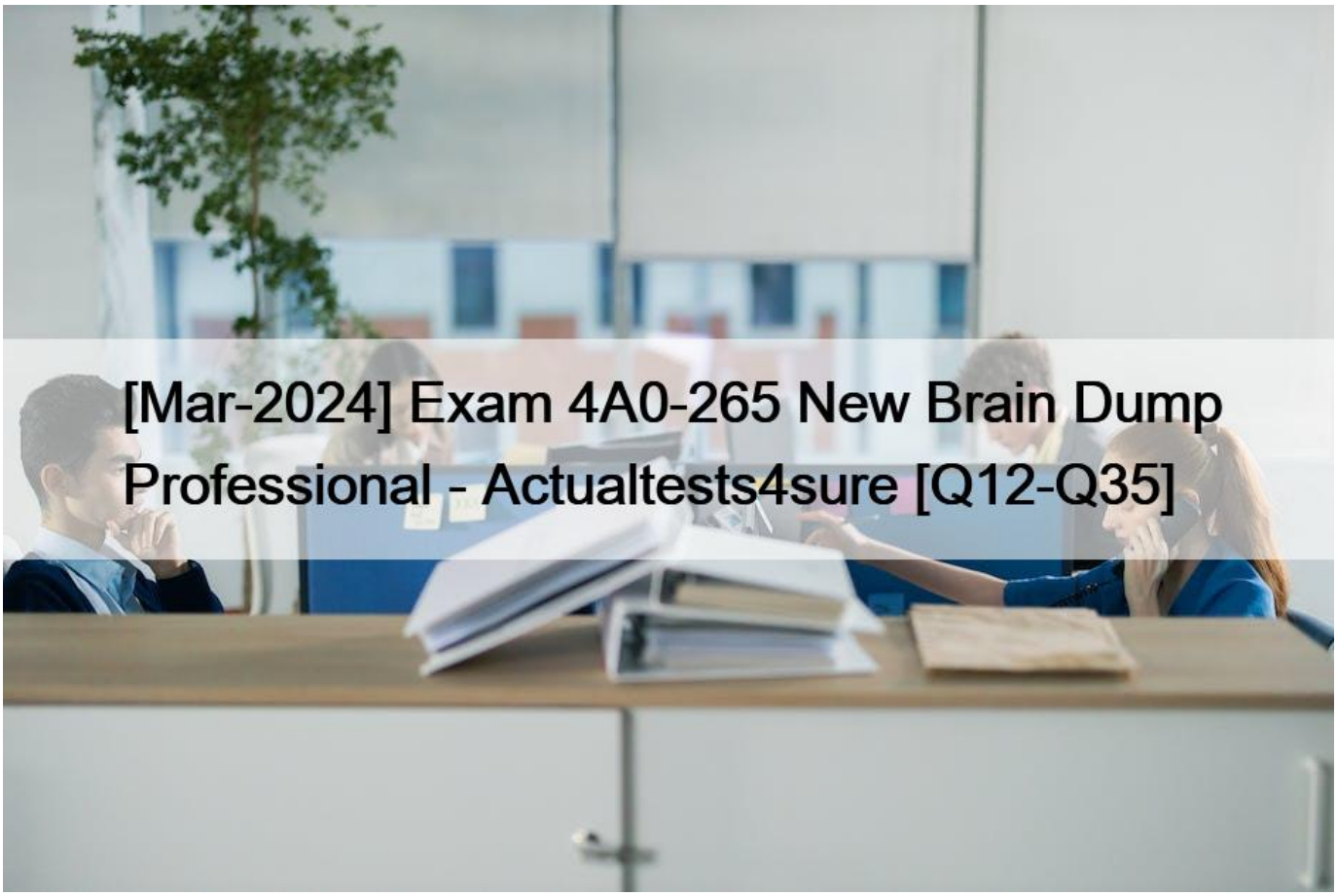
[Mar-2024 Exam 4A0-265 New Brain Dump Professional - Actualtests4sure [Q12-Q35



[Mar-2024] Exam 4A0-265: New Brain Dump Professional - Actualtests4sure
Free 4A0-265 Exam Dumps to Improve Exam Score

Nokia 4A0-265 certification exam is a challenging exam that requires candidates to have practical experience in optical network diagnosis and troubleshooting. It is an ideal certification for professionals who work in the field of optical network engineering, system administration, and support. Nokia Optical Diagnostics and Troubleshooting certification exam is recognized globally and is an excellent way to demonstrate one's skills and knowledge in this field.

The Nokia 4A0-265 exam is designed to help individuals enhance their skills in troubleshooting and resolve problems related to optical networks. Additionally, the certification exam enables professionals to evaluate and analyze network performance, detect optical faults, and determine the root cause of any issue with the minimum downtime.

QUESTION 12

Which of the following statements about using Nokia product documentation in the troubleshooting process is TRUE?
* Before investigating a problem it is important to check the Engineering and Planning Tool User Guide (EPTUG) if a possible issue has already been acknowledged by the Product Unit (PU).
* The Customer Release Notes (CRNs) provides instructions to perform the automated provisioning, commissioning, and power balancing functions in a customer network based on the Nokia 1830 PS5 platform.
* Before investigating a problem it is important to check the User Provisioning Guide (UPG) if a possible issue has already been acknowledged by the Product Unit (PU).
* The Customer Release Notes (CRNs) document collects documented solved known issues, new issues discovered after the product software has been released.as well as software upgrade procedures and firmware details.
Explanation

The Customer Release Notes (CRNs) document collects documented solved known issues, new issues discovered after the product software has been released, as well as software upgrade procedures and firmware details. This document is useful for troubleshooting because it can help identify if a problem is related to a known issue or a software bug, and if there is a workaround or a solution available. The CRNs also provide information about the software compatibility and interoperability of different Nokia products and platforms.

The other options are incorrect because the EPTUG and the UPG do not contain information about known issues, and the CRNs do not provide instructions for automated provisioning, commissioning, and power balancing functions. References: Nokia Optical Diagnostics and Troubleshooting Course, Nokia Optical Diagnostics and Troubleshooting Exam

QUESTION 13

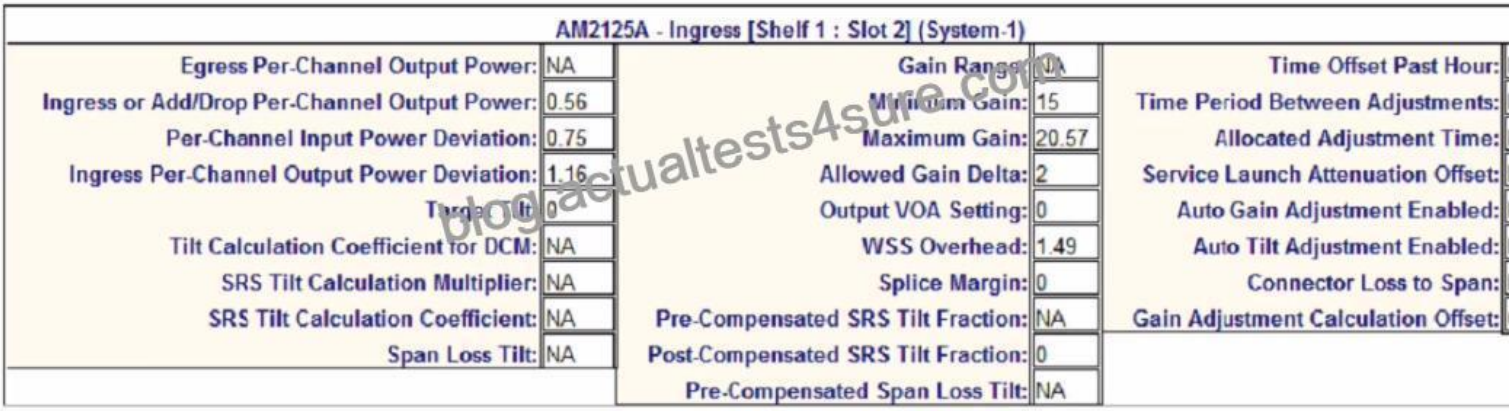
A “Power Adjustment Required” alarm was raised on the ingress amplifier in slot 1/10. Which of the following commands should be entered to manually adjust the related amplifier optical power levels?
* config powermgmt ingress 1/10 scot
* config powermgmt ingress 1/10 power adjustment
* config powermgmt ingress 1/10
* config powermgmt ingress 1/10 adjust
Explanation

A “Power Adjustment Required” alarm is raised when the optical power levels of an amplifier are out of the expected range and need to be adjusted. To manually adjust the related amplifier optical power levels, the command config powermgmt ingress 1/10 adjust should be entered. This command will initiate a power adjustment process for the ingress amplifier in slot 1/10, which is the input port for the optical line signal. The command will also display the status and results of the power adjustment, such as success, failure, or conditional success. The other commands are incorrect because they either do not initiate a power adjustment process or have invalid syntax. References: Nokia Optical Diagnostics and Troubleshooting Course, OAM and Diagnostics Guide

QUESTION 14

Consider the exhibit which shows an EPT Power ManagementReport for an ingress amplifier.

What is the available output optical power range?



AM2125A - Ingress [Shelf 1 : Slot 2] (System-1)

Egress Per-Channel Output Power:	NA	Gain Range:	NA	Time Offset Past Hour:	
Ingress or Add/Drop Per-Channel Output Power:	0.56	Minimum Gain:	15	Time Period Between Adjustments:	
Per-Channel Input Power Deviation:	0.75	Maximum Gain:	20.57	Allocated Adjustment Time:	
Ingress Per-Channel Output Power Deviation:	1.16	Allowed Gain Delta:	2	Service Launch Attenuation Offset:	
Target Tilt:	0	Output VOA Setting:	0	Auto Gain Adjustment Enabled:	
Tilt Calculation Coefficient for DCM:	NA	WSS Overhead:	1.49	Auto Tilt Adjustment Enabled:	
SRS Tilt Calculation Multiplier:	NA	Splice Margin:	0	Connector Loss to Span:	
SRS Tilt Calculation Coefficient:	NA	Pre-Compensated SRS Tilt Fraction:	NA	Gain Adjustment Calculation Offset:	
Span Loss Tilt:	NA	Post-Compensated SRS Tilt Fraction:	0		
		Pre-Compensated Span Loss Tilt:	NA		

* -0.6 to 1.72 dB
* -0.02 to 1.14 dB
* 0.56 to 1.14 dB
* 0.56 to 1.72 dB

Explanation

The available output optical power range is the difference between the maximum gain and the minimum gain range of the ingress amplifier. According to the EPT Power Management Report, the maximum gain is 25.7 dB and the minimum gain range is 14 dB. Therefore, the available output optical power range is 25.7 – 14 =

11.7 dB. To convert this to a logarithmic scale, we use the formula 10(x/10), where x is the value in dB.

Therefore, the available output optical power range in logarithmic scale is 10(11.7/10) – 10(14/10) = 14.68 –

25.12 = -0.6 to 1.72dB. References : Nokia Optical Diagnostics and Troubleshooting Course | Nokia, EPT Power Management Report | Nokia

QUESTION 15

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

QUESTION 16

What is the default severity level for a Threshold Crossing Alert (TCA) alarm?
* Critical
* Major
* Minor
* Warning

Explanation

A Threshold Crossing Alert (TCA) alarm is a type of alarm that indicates that a monitored parameter has crossed a predefined threshold. For example, a TCA alarm can be triggered when the optical power received at a port is too high or too low. The default severity level for a TCA alarm is warning, which means that it does not affect the service but may require attention. The other severity levels are critical, major, and minor, which indicate different degrees of impact and urgency of the alarms. The severity level of a TCA alarm can be changed by the user using the Nokia 1830 Engineering and Planning Tool (EPT) or the Nokia 1350 Optical Management System (OMS). References: Nokia Optical Diagnostics and Troubleshooting Course, Nokia 1830 PSS-32 and PSS-16 Photonic Service Switch Release 8.0 Alarms and Conditions Reference Guide

QUESTION 17

Suppose a node is experiencing a little unexpected attenuation over the Optical Supervisory Channel (OSC) transmit direction. Which of the following statements is FALSE?
* No OSC-related alarms will raise on the local node.
* A “Data Link Down” alarm will raise on the adjacent node.
* A Power adjustments action will fail on the local node.
* Traffic will pass between the local and adjacent node.

Explanation

The statement that is false is that no OSC-related alarms will raise on the local node. OSC stands for Optical Supervisory Channel, which is a dedicated wavelength used for out-of-band signaling and management of optical network elements. If a node is experiencing a little unexpected attenuation over the OSC transmit direction, it means that the OSC signal is weaker than expected when it reaches the adjacent node. This can cause a “Data Link Down” alarm to raise on the adjacent node, indicating that the OSC communication link is broken or degraded. However, this can also cause an “OSC Power Low” alarm to raise on the local node, indicating that the OSC transmit power is below the threshold. Therefore, there will be OSC-related alarms on both nodes. The other statements are true because a power adjustment action will fail on the local node due to insufficient OSC power, and traffic will pass between the nodes as long as there is no other issue affecting the data channels. References: Nokia Optical Diagnostics and Troubleshooting Course, Optical Supervisory Channel Module product data sheet

QUESTION 18

A power adjustment has succeeded conditionally because of gain settings set to higher levels than expected by design. Which of the following alarms will raise?
* Invalid topology (PRCDRERR-TOPO)
* Amplifier Gain Tilt Adjustments Suspended (PWRTILTSUSP)
* Power Adjustment Failure (PWRADJFAIL)
* Gain Adjustment Exceeded Max Value (PWRMAXGAIN)

Explanation

A power adjustment has succeeded conditionally because of gain settings set to higher levels than expected by design. This means that the optical power levels of the amplifier have been adjusted within the acceptable range, but the gain values are higher than the design values. This can cause a performance degradation or instability of the optical signal. The alarm that will raise in this case is “Amplifier Gain Tilt Adjustments Suspended” (PWRTILTSUSP). This alarm indicates that the gain tilt adjustments, which are used to compensate for the wavelength-dependent loss of the optical signal, have been suspended due to high gain values.

The alarm also suggests lowering the gain values manually or using the EPT tool. The other alarms are incorrect because they either indicate a different type of power adjustment issue or do not exist. References: Nokia Optical Diagnostics and Troubleshooting Course, OAM and Diagnostics Guide

QUESTION 19

Which of the following statements about 1-Day PMs is TRUE?
* 1-Day PMs show measurements collected over the preceding 24 hours. Up to 8 bins are available for data storing.
* 1-Day PMs show measurements collected since the beginning of the current day. Up to 8 bins are available for data storing.
* 1-Day PMs show measurements collected over the preceding 24 hours. Up to 33 bins are available for data storing.
* 1-Day PMs show measurements collected since the beginning of the current day. Up to 33 bins are available for data storing.
Explanation

1-Day PMs are one of the types of PM data that can be retrieved from an optical network element. 1-Day PMs show measurements collected over the preceding 24 hours, with each hour being a bin. Up to 8 bins are available for data storing, which means that only the most recent 8 hours of data can be accessed. The other types of PM data are 15-Minute PMs, which show measurements collected over the preceding 15 minutes, with each minute being a bin, and Total PMs, which show measurements collected since the last reset of the PM counters. References: Nokia Optical Diagnostics and Troubleshooting Course, Nokia 1830 PSS-32 and PSS-16 Photonic Service Switch Release 8.0 Performance Monitoring Reference Guide

QUESTION 20

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

QUESTION 21

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.

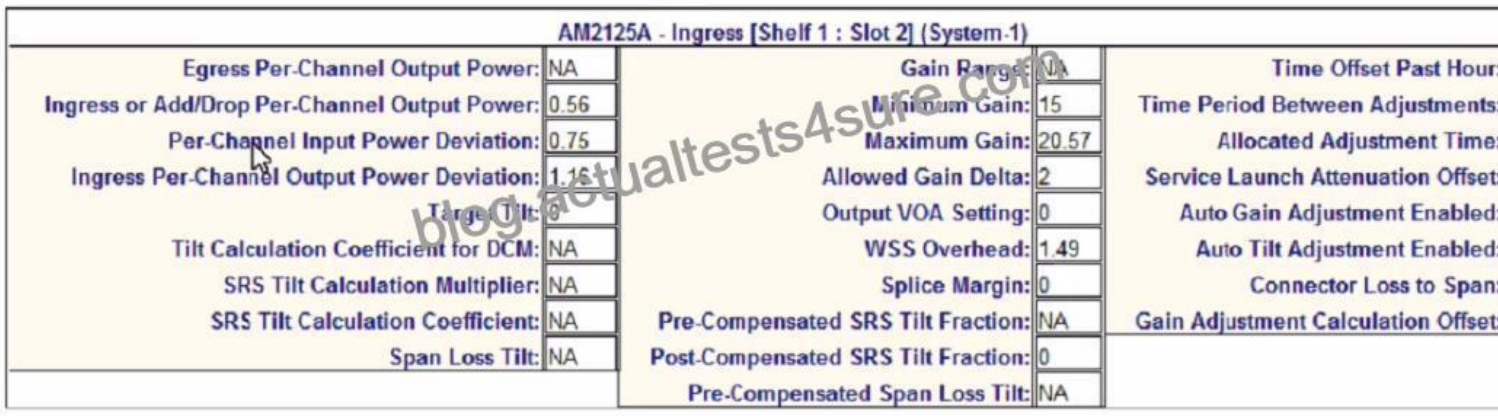
* Determine the active clock reference source. This step is necessary to verify which clock source is currently used by the node, and if it matches the expected configuration. The clock source can be either a local oscillator (LO) or a phase-locked loop (PLL) that synchronizes with an external reference2.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

QUESTION 22

Consider the exhibit which shows an EPT Power Management Report referring to an ingress amplifier. What is the available output optical power range?



AM2125A - Ingress [Shelf 1 : Slot 2] (System-1)

Egress Per-Channel Output Power:	NA	Gain Range:	NA	Time Offset Past Hour:	
Ingress or Add/Drop Per-Channel Output Power:	0.56	Minimum Gain:	15	Time Period Between Adjustments:	
Per-Channel Input Power Deviation:	0.75	Maximum Gain:	20.57	Allocated Adjustment Time:	
Ingress Per-Channel Output Power Deviation:	1.16	Allowed Gain Delta:	2	Service Launch Attenuation Offset:	
Target Tilt:	0	Output VOA Setting:	0	Auto Gain Adjustment Enabled:	
Tilt Calculation Coefficient for DCM:	NA	WSS Overhead:	1.49	Auto Tilt Adjustment Enabled:	
SRS Tilt Calculation Multiplier:	NA	Splice Margin:	0	Connector Loss to Span:	
SRS Tilt Calculation Coefficient:	NA	Pre-Compensated SRS Tilt Fraction:	NA	Gain Adjustment Calculation Offset:	
Span Loss Tilt:	NA	Post-Compensated SRS Tilt Fraction:	0		
		Pre-Compensated Span Loss Tilt:	NA		

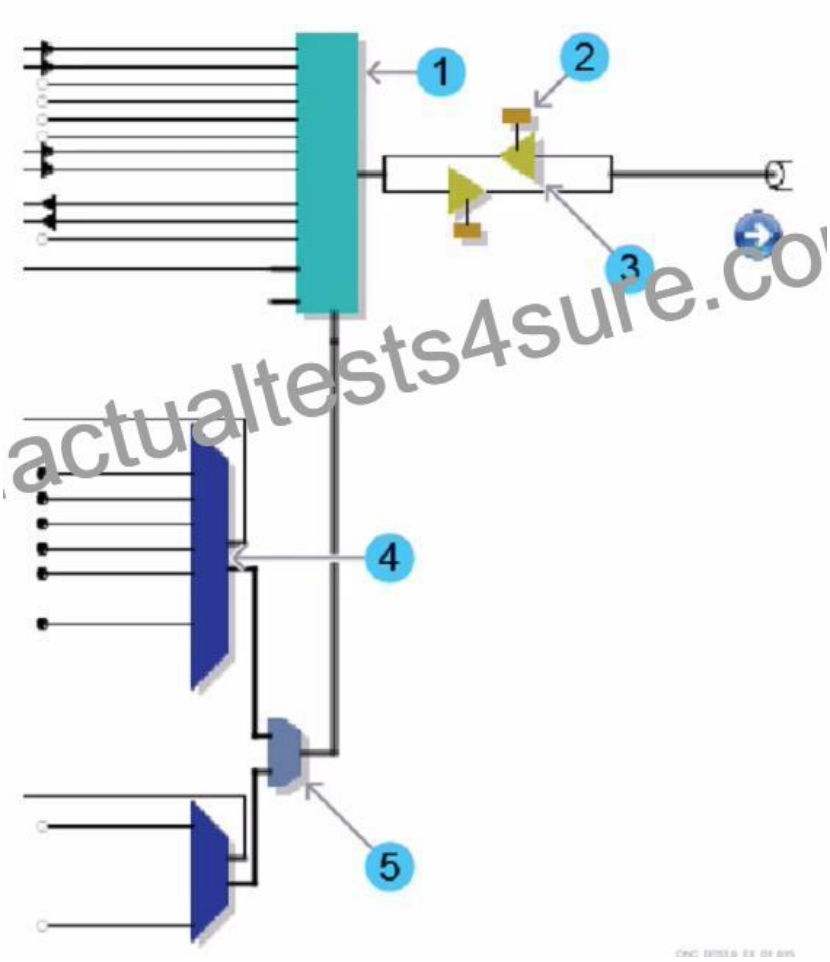
* -0.6 to 1.72 dB
* -0.02 to 1.14 dB
* 0.56 to 1.14 dB
* 0.56 to 1.72 dB

Explanation

The available output optical power range is the same as in question 5, since the EPT Power Management Report refers to the same ingress amplifier with the same settings and parameters. Therefore, the answer is also A, -0.6 to 1.72 dB. References : Nokia Optical Diagnostics and Troubleshooting Course | Nokia, EPT Power Management Report | Nokia

QUESTION 23

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

QUESTION 24

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

QUESTION 25

Which of the following statements about the alarm masking mechanism is TRUE?
* The alarm masking mechanism makes sure that alarms are always present on the downstream interfaces to facilitate the troubleshooting process.
* The alarm masking mechanism updates the events’ original time stamps when it masks/shows alarms, so that when an alarm is not masked anymore, the user can see the updated date and time associated with the original issue.
* The alarm masking mechanism always forwards masked alarms to an external Network Management System (NMS) for alarm correlation.
* The alarm masking mechanism preserves the events’ original time stamps, when related alarms gets hidden and then eventually displayed because of the mechanism itself, so that the user can still know the date and time of the original issue.
Explanation

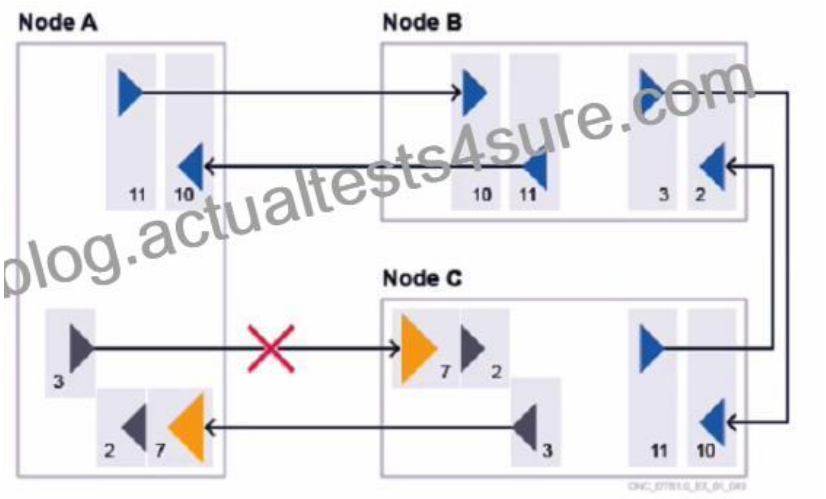
The alarm masking mechanism is a feature of the 1830 PSS that prevents unnecessary alarms from being displayed on the GUI or forwarded to an external NMS when they are caused by a known fault or maintenance activity. For example, if an optical link is down due to a fiber cut, there is no need to show alarms for all the downstream interfaces that are affected by the link failure. The alarm masking mechanism hides these alarms until the root cause is resolved, and then shows them again if they persist. The alarm masking mechanism preserves the events’ original time stamps when it masks/shows alarms, so that when an alarm is not masked anymore, the user can see the original date and time associated with the issue. This helps to identify and troubleshoot problems more accurately and efficiently. References : Optical User Guide – Nokia, Alcatel-Lucent 1830 PSS-8 and PSS-16 Photonic Service Switch

QUESTION 26

Consider the exhibit. A single directional fiber cut is occurring between two amplifiers in unidirectional configuration with Raman pump.

Multiple services are crossing the affected span.

Which node(s) will report an Incoming Payload LOS” alarm?



* No node, as a Raman pump is used in Node A.
* Node C only.
* Both Node A and Node C
* Neither Node A nor Node C.

Explanation

A single directional fiber cut is occurring between two amplifiers in unidirectional configuration with Raman pump. Multiple services are crossing the affected span. The node(s) that will report an Incoming Payload LOS alarm are both Node A and Node C. An Incoming Payload LOS alarm indicates that there is no or very low signal at the input port of a node. In the exhibit, Node A will report this alarm because it will not receive any signal from Node B due to the fiber cut. Node C will also report this alarm because it will not receive any signal from Node D due to the fiber cut. The Raman pump in Node A does not prevent this alarm, as it only amplifies the signal in the forward direction, not the backward direction. The other options are incorrect because they either ignore one of the nodes that will report the alarm or assume that the Raman pump has an effect on the backward direction. References: Nokia Optical Diagnostics and Troubleshooting Course, OAM and Diagnostics Guide

QUESTION 27

Refer to the exhibit, which shows a conditions list from the 1830 PSS GUI. (i) What is the total number of alarms reported? (ii) How many service affecting alarms are displayed? (iii) How many conditions are displayed?

Severity	Time	Source	Card	Category	Description
	3/8/21 04:43:19 PM	1/6/SIG Out	AHPHG	OTS	Power Adjustment Failure
	3/8/21 04:38:44 PM	1/2/LINEOUT Out	AM2125A	OTS	Power Adjustment Failure
	3/8/21 04:37:01 PM	1/8/SIG Out 9370.000	WR8-88AF	OCH	Outgoing channel absent
	3/8/21 04:37:01 PM	1/8/SIG Out 9360.000	WR8-88AF	OCH	Outgoing channel absent
	3/8/21 04:36:12 PM	1/4/SIG Out 9370.000	WR8-88AF	OCH	Outgoing channel absent
	3/8/21 04:36:12 PM	1/4/SIG Out 9360.000	WR8-88AF	OCH	Outgoing channel absent
	3/8/21 04:36:11 PM	1/6/LINE Out 9370.000	AHPHG	OCH	Outgoing channel absent
	3/8/21 04:36:11 PM	1/6/LINE Out 9360.000	AHPHG	OCH	Outgoing channel absent
	3/8/21 04:36:11 PM	1/8/THRU In	WR8-88AF	OTS	Input LOS
	3/8/21 04:36:11 PM	1/4/THRU In	WR8-88AF	OTS	Input LOS
	3/8/21 04:36:10 PM	1/3/LINEOUT Out 9370.000	AM2125A	OCH	Outgoing channel absent
	3/8/21 04:36:10 PM	1/3/LINEOUT Out 9360.000	AM2125A	OCH	Outgoing channel absent
	3/8/21 04:36:10 PM	1/2/LINEOUT Out	AM2125A	OTS	APR Active - Node
	3/3/21 10:09:22 AM	SYSTEM		COM	No committed software load (Autoinstall disab

* (I) total number of alarms = 5

(ii) number of serviceaffectingalarms = 2

(Hi) number of conditions = 14
* (i) total number of alarms = 7

(ii) number of service affecting alarms = 5

(Hi) number of conditions = 7
* (i) total number of alarms = 2

(ii) number of service affecting alarms = 2

(Hi) number of conditions = 18
* (i) total number of alarms = 4

(ii) number of service affecting alarms = 14

(iii) number of conditions = 2
Explanation

The exhibit shows a conditions list from the 1830 PSS GUI, which displays the alarms and events that occur on the network elements. The total number of alarms reported is equal to the number of rows that have a red or yellow icon in the Severity column, indicating a critical or major alarm. In this case, there are 7 rows with such icons, so the total number of alarms is 7. The number of service affecting alarms is equal to the number of rows that have a “Yes” valuein the Service Affecting column, indicating that the alarm affects the service quality or availability. In this case, there are 5 rows with such values, so the number of service affecting alarms is 5. The number of conditions is equal to the total number of rows in the table, regardless of their severity or service affecting status. In this case, there are 7 rows in the table, so the number of conditions is

7. References : Optical User Guide – Nokia, Security Target Nokia 1830 Photonic Service Switch (PSS)

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