PASSTCERT

QUESTION & ANSWER

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Exam : **4A0-205**

Title : Nokia Optical Networking Fundamentals

Version : DEMO

1.How does a Raman pump work in the 1830 specific implementation?

A. The amplification is done simultaneously for all channels as they enter the board.

B. As the incoming signal power increase, the gain of the amplifier is reduced.

C. The pump light travels in the same direction of the signal, amplifying it while it flows in the fiber towards the following node.

D. The pump light travels in the opposite direction of the signal to be amplified, amplifying it while it arrives from the adjacent node.

Answer: C

Explanation:

In the 1830 implementation, the Raman pump uses a technique called co-propagation, where the pump light (which provides the energy for amplification) travels in the same direction as the signal. This setup is used to amplify the signal as it flows through the fiber towards the next node.

2.Which of the following sentences about FlexGrid is false?

A. FlexGrid allows a more efficient channel spacing.

B. Channels in FlexGrid systems are allocated with a granularity of 27.5GHz.

C. FlexGrid systems use specific sets of boards. Old generation WDM systems need to be upgraded to support FlexGrid.

D. The FlexGrid is currently standardized by ITU-T.

Answer: B

Explanation:

This statement is false. In a FlexGrid system, the channels are allocated with a granularity of 6.25 GHz, not 27.5 GHz. This allows for more efficient use of the optical spectrum and better flexibility.

3.Which of the following statements is true about chromatic dispersion (CD)?

A. Different channels have different bandwidth and this causes different CD performances.

B. The fiber attenuation changes along the fiber, and when the light crosses these differences the CD takes place.

C. Different wavelengths propagate at different speeds within the same media and therefore different colors travel in the fiber with different speed.

D. The fiber attenuation introduces inter-channel interference.

Answer: C

Explanation:

Different wavelengths propagate at different speeds within the same media and therefore different colors travel in the fiber with different speed. This phenomenon is known as chromatic dispersion and causes light to spread out as it travels through the fiber over distance, leading to signal attenuation and distortion. The fiber attenuation does not introduce inter-channel interference, but it can cause attenuation of the signal. Different channels have different bandwidths, but this does not affect CD performance.

4.Which of the following applications is related to Wavelength Tracker tool?

A. Collecting logs related to possible issue affecting a wavelength path

B. Tracking the protection path for a specific wavelength

C. Tracing the end-to-end wavelength optical power

D. Correcting errors related to wavelength inconsistencies

Answer: C

Explanation:

The Wavelength Tracker tool is used for real-time tracking and monitoring of wavelength paths in an optical network. Its key function is to trace the end-to-end optical power of a particular wavelength. This aids in network troubleshooting and performance optimization.

5.What is the purpose of the validate step in the EPT design process?

A. During this step, the configuration available on the involved network elements is compared with the design provided byEPT.

B. This step is used to measure optical power performances over an existing network before making changes.

C. This step is optional and is useful to verify the network element layout before going through the commission step.

D. During this step, the run design action is triggered for network design consistency check and errors fixing.

Answer: A

Explanation:

In the EPT design process, the validate step is crucial to compare the actual configuration of network elements with the design provided by EPT (Engineering Planning Tool). This step ensures that the network has been set up correctly according to the design.