Huawei

H19-315 Exam

HCSA-Presales-Transmission & Access

Questions & Answers
Demo

Version: 6.0

Question: 1

AES-128 is the encryption algorithm used by GPON for downstream.

A. True
B. False

Answer: B

Explanation:

GPON (Gigabit Passive Optical Network) does not use AES-128 encryption for downstream traffic. Instead, GPON uses AES-128 encryptiononly for upstream trafficto ensure data security between the Optical Network Unit (ONU) and the Optical Line Terminal (OLT). Downstream traffic in GPON is broadcasted to all ONUs, and encryption is not applied because the data is intended for multiple users. The encryption key is dynamically managed by the OLT and distributed securely to the ONUs. This behavior is defined in theITU-T G.984 standard, which specifies the GPON architecture and security mechanisms. For downstream traffic, the security relies on higher-layer protocols (e.g., IPsec or application-level encryption).
Reference:
ITU-T G.984 Standard - GPON Architecture and Security
Huawei GPON Technical Documentation

Question: 2

What are the basic components of the PON system?

A. WDM
B. ONU
C. OLT
D. ODN

Answer: B,C,D

Explanation:

A Passive Optical Network (PON) system consists of three primary components:
OLT (Optical Line Terminal):The central device located at the service provider's premises. It connects to the core network and manages communication with multiple ONUs.
ONU (Optical Network Unit):The customer-side device located at the user's premises. It converts optical signals into electrical signals for end-user devices.
ODN (Optical Distribution Network):The passive infrastructure that includes optical fibers, splitters, and connectors to distribute signals between the OLT and ONUs.
WDM (Wavelength Division Multiplexing) is a technology used in optical networks but is not a basic component of a PON system. It is often used in advanced PON systems like XG-PON or NG-PON2 to separate upstream and downstream wavelengths.
Reference:
ITU-T G.984 Standard - PON Architecture
Huawei PON System Design Guide

Question: 3

POL can be sold independently in all office scenarios.

A. True
B. False

Answer: B

Explanation:

POL (Passive Optical LAN) is a solution designed for enterprise campus environments, leveraging PON technology to provide converged voice, data, and video services. While POL is highly versatile and can be deployed in various scenarios such as education, healthcare, hospitality, and office environments, itcannot always be sold independentlyin all office scenarios.
The deployment of POL depends on factors such as the existing infrastructure, customer requirements, and the scale of the network. In some cases, additional components like Wi-Fi access points, routers, or switches may be required to complement the POL solution. Therefore, POL is typically sold as part of an integrated solution tailored to the customer's specific needs.
Reference:
Huawei Campus OptiX Solution Guide
POL Deployment Best Practices

Question: 4

Which of the following products are recommended for Campus OptiX (POL) safe city scene?

A. Indoor monitoring ONT, such as P612E, EA5821
B. Pre-connection ODN
C. Outdoor monitoring ONT, such as EG8084P, PowerCube500

D. Small and medium OLT, such as EA5801, EA5800-X2

Answer: C

Explanation:

In asafe city scenario, outdoor monitoring is a critical requirement. Huawei recommends usingoutdoor monitoring ONTslike theEG8084PandPowerCube500for such deployments. These devices are ruggedized and designed to operate in harsh environmental conditions, making them ideal for outdoor surveillance applications.

While indoor monitoring ONTs and pre-connection ODN are useful in other scenarios, they are not specifically optimized for outdoor safe city deployments. Similarly, small and medium OLTs like the EA5801 and EA5800-X2 are suitable for smaller-scale networks but are not directly related to the safe city use case.

Reference:

Huawei Safe City Solution Guide

Campus OptiX (POL) Deployment Scenarios

Question: 5

Which of the following are the main sale products in the Campus OptiX solution?

A. OLT + ODN + ONU + eSight
B. OLT + ODN + ONU
C. OLT + ODN + ONU + U2000
D. OLT + ONT

Answer: A

Explanation:

TheCampus OptiX solutionis a comprehensive offering that integrates multiple components to deliver a complete Passive Optical LAN (POL) solution. The main sale products include:

OLT (Optical Line Terminal):Central device for managing the network.

ODN (Optical Distribution Network):Passive infrastructure for signal distribution.

ONU/ONT (Optical Network Unit/Terminal):Customer-side devices for connecting end-users.

eSight:Huawei's network management system (NMS) for centralized monitoring and management of the entire network.

While options like "OLT + ODN + ONU" or "OLT + ONT" represent subsets of the solution, the inclusion ofeSightis critical for effective network management and operation, making option A the most complete and accurate choice.

Reference:

Huawei Campus OptiX Solution Guide

eSight Product Documentation