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**Huawei**

**H12-821\_V1.0**

**HCIP-Datacom-Core**

**Technology V1.0**

**QUESTION: 1**

DRAG DROP (Drag and Drop is not supported)

Huawei modular devices have multiple hardware modules that provide different functions. Match the following hardware modules with their functions.

MPU		Acts as the data plane of the entire system.
SFU		Forwards data and provides optical and electrical ports of different rates.
LPU		Acts as the control plane and management plane of the entire system.

A. See Explanation for Answer.

**Answer(s): A**

**Explanation:**

The hardware modules of Huawei modular devices and their functions are:

Main Processing Unit (MPU): Provides control and management planes for the entire system, responsible for protocol processing, system security, and software upgrades.

Switch Fabric Unit (SFU): Provides the data plane, enabling high-speed data switching between service modules.

Line Processing Unit (LPU): Manages data forwarding, offering various interfaces (optical and electrical) for data access.

**QUESTION: 2**

A router performs a lookup in its FIB table for a packet. If the tunnel ID in the matching entry is 0, the packet needs to be forwarded through a tunnel, such as an MPLS tunnel.

- A. TRUE
- B. FALSE

**Answer(s): B**

**Explanation:**

The question indicates that a router performs a lookup in its FIB table for a packet and determines that the tunnel ID in the matching entry is 0, suggesting that the packet needs to be forwarded through a tunnel such as an MPLS tunnel. However, this is a misunderstanding of the FIB functionality.

**FIB Table Overview**

The Forwarding Information Base (FIB) is used to make packet-forwarding decisions. Entries in the FIB include next-hop information, which can be directly linked to an interface or a tunnel.

If the Tunnel ID is 0, it indicates that the packet is forwarded via a normal routing path and not through a tunnel.

For MPLS or other tunnels, the Tunnel ID would have a non-zero value pointing to the associated tunnel.

#### MPLS Tunnel Operation

When a router forwards packets through an MPLS tunnel, a label-switched path (LSP) is set up. The FIB would reflect specific tunnel identifiers for packets that need such encapsulation.

#### HCIP-Datcom-Core Reference

Routing Principles and MPLS explain the forwarding mechanisms clearly, stating that if a packet is routed normally, the tunnel ID remains 0.

The section on MPLS clarifies the encapsulation process and the role of tunnel identifiers.

Hence, the claim in the question is incorrect. A Tunnel ID of 0 implies no tunneling is required, and normal IP forwarding occurs

#### QUESTION: 3

On an OSPF network, one router with P2P as the network type is directly connected to another router with P2MP as the network type. If the Hello intervals on the two routers are changed to be the same, neighbor relationship establishment and LSDB synchronization are not affected.

- A. TRUE
- B. FALSE

**Answer(s): B**

#### Explanation:

The scenario describes a mismatch in OSPF network types between two connected routers: one set to Point-to-Point (P2P) and the other set to Point-to-Multipoint (P2MP).

While aligning Hello intervals may seem sufficient for establishing an OSPF neighbor relationship, the fundamental mismatch in network types introduces issues.

#### OSPF Network Types

**P2P:** Assumes a direct connection with a single neighbor, uses faster convergence and simpler LSDB synchronization.

**P2MP:** Supports multiple neighbors on a single interface, requiring different handling for DR/BDR roles and LSDB updates.

#### Impact of Network Type Mismatch

If Hello intervals are aligned, adjacency establishment might occur. However, mismatched network types affect neighbor role assignment and LSDB synchronization.