

**HPE0-S37.Testking**

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**HPE0-S37**

**Building HPE Server Solutions**

**Version 1.0**



**Exam A****QUESTION 1**

Which tool should an architect use to estimate data center cooling requirements for server configurations?

- A. HPE Switch Selector
- B. HPE iQuote Universal
- C. HPE Power Advisor
- D. HPE Sizer for Server Virtualization

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

HPE Power Advisor is an easy-to-use tool that estimates your data center power requirements for your server and storage configurations. Version 6.x includes new HPE ProLiant Gen9 server options,

References: <https://www.hpe.com/us/en/integrated-systems/rack-power-cooling.html>

**QUESTION 2**

Which design concept is based on the principle of fluid resource pools?

- A. Composable Infrastructure
- B. Adaptive infrastructure
- C. The Idea Economy
- D. Software-defined Storage

**Correct Answer: A**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

HP Composable Infrastructure is designed around three core principles:

\* Fluid resource pools effortlessly meet each application's changing needs by allowing for the composition and recomposition of single blocks of disaggregated compute, storage, and fabric infrastructure.

\* Software-defined intelligence provides a single management interface to integrate operational silos and eliminate complexity. Workload templates

speed deployment and frictionless change eliminates unnecessary downtime.

\* Unified API provides a single interface to discover, search, inventory, configure, provision, update, and diagnose the composable infrastructure. A single line of code enables full infrastructure programmability and can provision the infrastructure required for an application.

References: <https://www.hpe.com/h20195/v2/GetPDF.aspx/4AA5-8813ENW.pdf> (page 6)

### QUESTION 3

Which protocol is primarily used in servers to connect high performance disk drives to internal disk controllers?

- A. FC
- B. SAS
- C. FCoE
- D. iSCSI

**Correct Answer:** B

**Section:** (none)

**Explanation**

#### **Explanation/Reference:**

Explanation:

Serial Attached SCSI (SAS) is a point-to-point serial protocol that moves data to and from computer storage devices such as hard drives and tape drives.

SAS provides for point data transfer speeds up to 6 Gbit/s, but 12 Gbit/s products have begun shipping in 2013.

### QUESTION 4

Which HPE option is required for using Location Discovery?

- A. iLO3 Management
- B. HPE Power Distribution Units
- C. HPE Intelligent Provisioning
- D. HPE Intelligent Series Rack

**Correct Answer:** D

**Section:** (none)

**Explanation**

#### **Explanation/Reference:**

Explanation:

HP Intelligent Series Racks with the HP Location Discovery option installed provides detailed location information to ProLiant Gen8 Server series units to help you track new installations and equipment moves.

References: <http://www8.hp.com/us/en/products/server-location-discovery/product-detail.html?oid=5309635>

#### QUESTION 5

In which category is the IEC 60309 an industry standard?

- A. Power
- B. Airflow
- C. Humidity
- D. Space

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

IEC 60309 is an international standard from the International Electrotechnical Commission (IEC) for "plugs, socket-outlets and couplers for industrial purposes".

The cable connectors and sockets are colour-coded, according to the voltage range and frequency used; for example, common colours are yellow for 100–130 volts and 50–60 Hz, blue for 200–250 volts and 50–60 Hz, and red for 400–480 volts and 50–60 Hz. Color codes depend on the highest, phase-to-phase, voltage.

References: [https://en.wikipedia.org/wiki/IEC\\_60309](https://en.wikipedia.org/wiki/IEC_60309)

#### QUESTION 6

Which component requires HPE Insight Management Agents to be installed to verify pre-failure warranty status?

- A. hard disk
- B. storage controller
- C. memory
- D. CPU

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

HPE Insight Management Agents Pre-Failure warranty alerts feature works for Memory and drives (physical and logical).

References: <http://h20195.www2.hp.com/V2/getpdf.aspx/4AA6-6053ENW.pdf> (page 7)

#### QUESTION 7

Which memory DIMM technology combines DRAM memory with flash memory to allow data to be retained in the event of power loss?

- A. LRDIMM
- B. RDIMM
- C. UDIMM
- D. NVDIM

**Correct Answer:** D

**Section:** (none)

**Explanation**

#### **Explanation/Reference:**

Explanation:

A Non-Volatile Dual In-line Memory Module (NVDIMM) is a computer memory RAM DIMM that retains data even when electrical power is removed either from an unexpected power loss, system crash or from a normal system shutdown. NVDIMMs can be used to improve application performance,[1] data security, system crash recovery time and to enhance SSD endurance and reliability.

There are two main types of NVDIMM cards: NVDIMM-F and NVDIMM-N.

NVDIMM-F is a Flash-only device that resides on the memory interconnect.

NVDIMM-N is a byte-addressable memory-mapped device, which is typically accessed at memory or near-memory speeds. DDR4 NVDIMM-N cards are being sold by multiple hardware vendors and support is getting wider.[4][non-primary source needed] These NVDIMM-N devices utilize DRAM for performance and endurance, though are limited in capacity and result in higher costs due to the use of both DRAM and flash memory.

References: <https://en.wikipedia.org/wiki/NVDIMM>

#### QUESTION 8

Which HPE cloud-based portal provides the ability to easily track service events and support cases and view device configurations?

- A. HPE Insight Diagnostic
- B. HPE Insight Online
- C. HPE Active Health System
- D. HPE Agentless Management Service

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

Use the Insight Online dashboard to monitor hardware health, track service events and support cases, view device configurations, and proactively monitor your HP contracts and warranties as well as HP Proactive service credit balances.

Features include:

**\* Support Cases**

Track support cases inclusive of auto-created cases from HP remote support, online submittals and dial-in. Filter your case list by active and closed and easily navigate to details. Open a case directly from a device with all the relevant details automatically captured to save you time.

**\* Devices**

Visual status of your devices and device groups with easy navigation to product and support details.

References: <http://www8.hp.com/se/sv/products/servers/solutions.html?compURI=1487547#tab=TAB2>

**QUESTION 9**

Where can a customer verify that a specific operating system is supported on a given HPE ProLiant server?

- A. in the Unified Extensible Firmware Interface (UEFI)
- B. in Smart Update Manager
- C. in HPE Single Point of Configuration Knowledge (SPOCK)
- D. on the operating system Support Matrix website



**Correct Answer: D**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

The operating system Support Matrix website features a support matrix for all HP Servers. This matrix cross references the various HP servers against operating systems that are certified for use on the servers.

References: <http://h17007.www1.hpe.com/us/en/enterprise/servers/supportmatrix/windows.aspx#.V9iQdih96Uk>

**QUESTION 10**

An administrator installs the Windows 2012 R2 operating system on a server with multiple network interface cards. The solution needs to have network adapter redundancy at the operating system level.

What should the administrator do to meet this requirement?

- A. Enable RDMA at the adapter level.
- B. Configure host-based VLANs.
- C. Configure Intelligent Resilient Framework through an agent

D. Configure NIC teaming, using at least two network adapters.

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

Applies To: Windows Server 2012 R2

NIC Teaming, also known as load balancing and failover (LBFO), allows multiple network adapters on a computer to be placed into a team for the following purposes:

- \* Bandwidth aggregation
- \* Traffic failover to prevent connectivity loss in the event of a network component failure

References: [https://technet.microsoft.com/en-us/library/hh831648\(v=ws.11\).aspx](https://technet.microsoft.com/en-us/library/hh831648(v=ws.11).aspx)

#### **QUESTION 11**

What do cluster environments use to identify node failures?

- A. SNMP community strings
- B. heartbeats
- C. OSPF link state advertisements
- D. network interface driver diagnostics



**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

What Happens when a Node Times Out

Each node sends a heartbeat message to the cluster coordinator every HEARTBEAT\_INTERVAL number of microseconds (as specified in the cluster configuration file). The cluster coordinator looks for this message from each node, and if it does not receive it within NODE\_TIMEOUT microseconds, the cluster is reformed minus the node no longer sending heartbeat messages.

On a node that is not the cluster coordinator, and on which a node timeout occurs (that is, no heartbeat message has arrived within NODE\_TIMEOUT seconds), the following sequence of events occurs:

- The node tries to reform the cluster.
- If the node cannot get a quorum (if it cannot get the cluster lock) then
- The node halts (system reset).

References: <http://docstore.mik.ua/manuals/hp-ux/en/B3936-90122/ch03s07.html>

**QUESTION 12**

What can be used to facilitate the configuration of OS installations on HPE ProLiant Servers?

- A. HPE Virtual Connect Manager
- B. HPE iLO Federation
- C. HPE Intelligent Provisioning
- D. HPE Smart Storage Administrator

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Intelligent Provisioning is a server provisioning tool that is simple to use, offers fast deployment and provides flexibility on how to deploy servers.

Fully integrated system and OS configuration tool reduces your server installation and set-up steps, so you can deploy servers faster.

References: <http://www8.hp.com/us/en/products/server-software/product-detail.html?oid=5219984>

**QUESTION 13**

An architect is using Sales Builder for Windows to create a configuration. The architect needs to generate a graphical view that can be used to modify the configuration.

Which functionality should the architect use?

- A. Whiteboard
- B. Configurator Worksheet
- C. Quoter
- D. System Diagram

**Correct Answer: A**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

The whiteboard is considered your working area. Just as in most programs, you can have one or more whiteboards opened and systems being configured on them at one time.

References: [http://www.tools.hp.com/sbwtraining/SBW-Configurator/3\\_03\\_whiteboard.pdf](http://www.tools.hp.com/sbwtraining/SBW-Configurator/3_03_whiteboard.pdf)



**QUESTION 14**

What is an advantage of RAID 6 over RAID 5?

- A. lower cost
- B. higher performance
- C. easier implementation
- D. higher data availability

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

RAID 6 has additional protection against block failures and controller errors by the extra parity.

References: <http://www.techrepublic.com/blog/the-enterprise-cloud/raid-5-or-raid-6-which-should-you-select/>

**QUESTION 15**

What is a benefit of PCIe version 3.0 over PCIe 2.0?

- A. It supports InfiniBand in full throughput mode.
- B. It reduces the profile of the option cards.
- C. It decreases the base clock speed to save power.
- D. It doubles the total bandwidth on the bus.



**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

PCI Express 3.0 upgrades the encoding scheme to 128b/130b from the previous 8b/10b encoding, reducing the bandwidth overhead from 20% of PCI Express 2.0 to approximately 1.54% ( $= 2/130$ ). PCI Express 3.0's 8 GT/s bit rate effectively delivers 985 MB/s per lane, practically doubling the lane bandwidth relative to PCI Express 2.0.

References: [https://en.wikipedia.org/wiki/PCI\\_Express#PCI\\_Express\\_3.0](https://en.wikipedia.org/wiki/PCI_Express#PCI_Express_3.0)

**QUESTION 16**

Which tool monitors the usage of Solid State Drives (SSD) to determine the estimated life of the drive?

- A. HPE Offline Insight Diagnostics
- B. HPE Smart Storage Administrator
- C. HPE Online Insight Diagnostics
- D. HPE OneView

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

HPE Smart Storage Administrator supports HP SmartSSD Wear Gauge reporting. This benefits users by monitoring their usage of Solid State Drives (SSD) and notifies them of the estimated remaining life of the drive, based on the current workload.

References: <http://www8.hp.com/us/en/products/server-software/product-detail.html?oid=5409020>

#### QUESTION 17

Which server components are monitored for redundancy status by means of HPE Agentless Management? (Select two.)

- A. FlexibleLOM
- B. power supply
- C. Smart Array controller
- D. fans
- E. CPU



**Correct Answer:** BC

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

References: <http://h20195.www2.hp.com/V2/getpdf.aspx/4AA6-6053ENW.pdf>

#### QUESTION 18

Which HPE technologies allow integration with HPE Intelligent Series Racks? (Select two.)

- A. HPE Intelligent Management Center (IMC)
- B. HPE Insight Diagnostics Online Edition

- C. HPE Platinum Power Supplies
- D. HPE Intelligent Provisioning
- E. HPE OneView

**Correct Answer:** CE

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

C: HPE Intelligent PDUs incorporate Power Discovery Services, which when combined with HPE's line of Platinum or Platinum Plus high efficiency power supplies, communicates with the attached servers to collect asset information for the automatic mapping of the power topology inside a rack, speeding implementation time and greatly reducing the risk of human errors that can cause power outages.

E: Location Discovery Services enable HPE OneView Advanced to automatically know and display the exact 3D location of Gen8 and Gen9 servers within HPE Intelligent Series Racks.

Note: The HP Intelligent Series is the first rack family to offer optional location discovery intelligence for advanced asset management. This new capability integrates with HP Lights-Out Management (iLO) and HP Intelligent Power Distribution Units (iPDU).

References:

<https://www.hpe.com/h20195/v2/getpdf.aspx/c04123237.pdf?ver=15>

<http://www8.hp.com/us/en/products/pdu/product-detail.html?oid=4206782>

<https://www.hpe.com/h20195/v2/getpdf.aspx/c04111367.pdf?ver=16>

#### **QUESTION 19**

Which HPE tool can be used to connect directly to HPE to register a Gen8/Gen9 ProLiant server for HPE Insight Remote Support?

- A. HPE Insight Online
- B. HPE Insight Diagnostic
- C. HPE Intelligent Provisioning
- D. HPE Onboard Administrator

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

Register with an Insight Remote Support 7.6 Hosting Device through the HPE ProLiant iLO 4 or Intelligent Provisioning interface.

References: [http://h17007.www1.hpe.com/us/en/enterprise/servers/supportmatrix/insight\\_rs.aspx](http://h17007.www1.hpe.com/us/en/enterprise/servers/supportmatrix/insight_rs.aspx)

**QUESTION 20**

What is a common benefit of using a Converged Network Adapter?

- A. ability to switch between Ethernet and InfiniBand connectivity
- B. hardware offload of SAS 3.0 protocol
- C. direct access to network card ROM from operating system
- D. hardware offload of iSCSI protocol

**Correct Answer: D**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

The HP Dual Port Converged Network Adapters (CNAs) are dual port adapters that provide Ethernet, iSCSI, and Fibre Channel (FC) connectivity over 10GbE using both Fibre Channel over Ethernet (FCoE) and Converged Enhanced Ethernet (CEE) standards. By consolidating Ethernet, iSCSI, and Fibre Channel onto a converged network adapter, HP CNAs reduce the number of separate adapters and cables required for your datacenter and also reduce operational, power and cooling costs while preserving existing Ethernet and Fibre Channel infrastructure.

References: <https://www.hpe.com/h20195/v2/getpdf.aspx/c04123272.pdf?ver=18>

**QUESTION 21**

Which tool used to configure HPE Secure Encryption?

- A. iLO
- B. UEFI
- C. SSA
- D. SUM

**Correct Answer: A**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

HPE Secure Encryption is easy to manage using iLO of the HPE Smart Array Px3x and Px4x controllers, and other direct-attached storage devices, via HPE Smart Storage Administrator.

References: <https://www.hpe.com/h20195/v2/GetPDF.aspx/c04318075.pdf>

**QUESTION 22**

What is a feature of HPE Synergy Composer?

- A. It updates resources without service interruption.
- B. It provides stateless compute boot images.
- C. It uses SATA, SAS, or SSD drives for internal storage.
- D. It uses one Compute Slot, or two for redundancy

**Correct Answer: A**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

HPE Synergy Composer, which is powered by HPE OneView, manages the Composable Infrastructure and delivers:

- \* Software-defined intelligence, with a single interface that precisely composes logical infrastructures at near-instant speeds; and demonstrates template-driven, frictionless operations, and
- \* Fluid pools of resources, where a single infrastructure of Compute, Storage, and Fabric boots up ready for workloads and demonstrates self-assimilating capacity,
- \* Unified API access

References: <https://www.hpe.com/h20195/v2/GetPDF.aspx/c04815139.pdf>

**QUESTION 23**

When configuring Secure Boot in VMware ESXi, which option should the administrator enable?

- A. Embedded UEFI Shell Options
- B. ROM Based Setup Utility
- C. UEFI Optimized Boot
- D. Legacy Boot Mode

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Before you enable Secure Boot, make sure you:

- \* Select UEFI Boot Mode.
- \* Enable UEFI Optimized Boot.

References: <http://www.hp.com/ctg/Manual/c04398276.pdf> (Page 79)

#### QUESTION 24

What advantage does a blade system solution provide over a standard rack based server solution?

- A. single phase power supplies
- B. redundant network adapters
- C. cable-less server installation
- D. redundant SSD mirroring

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Blade servers simplify cabling requirements and reduce wiring by a great percentage. Power cabling, operator wiring (keyboard, mouse, etc.) and communications cabling (Ethernet, SAN connections, cluster connection) are greatly reduced as well.

References: <http://www.maxi-pedia.com/blade+server+benefits+advantages+and+disadvantages>

#### QUESTION 25

A customer need a server solution that supports E3-1200 v5 processors.  
Which server model meets this requirement?

- A. HPE ProLiant ML10 Gen9
- B. MicroServer Gen8
- C. HPE ProLiant DL60 Gen9

**Correct Answer: A**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

The HPE ProLiant ML10 Gen9 Server supports the Intel Xeon® E3-1200 v5 processor in a 4U chassis offering increased performance and efficiency.

Note: The HPE ProLiant DL20 Gen9 Server is also powered by Intel® Pentium®, Core i3 and E3-1200v5 processors.

#### QUESTION 26

A customer needs to increase security within a management network and add the ability to log in to an iLO by using domain credentials. Which component is required to enable this functionality?

- A. TACACS+ server
- B. dedicated Active Directory server
- C. iLO Advanced license
- D. redundant Onboard Administrator

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

#### **QUESTION 27**

Which HPE software product provides a single infrastructure and single management platform?

- A. HPE Intelligent Provisioning
- B. HPE Insight Remote Support
- C. HPE OneView
- D. HPE Virtual Connect Enterprise Manager



**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

#### **QUESTION 28**

Which HPE tool can the administrator use to turn on enclosure identification UID?

- A. HPE Insight Display
- B. HPE Intelligent Provisioning
- C. HPE OneView
- D. HPE Virtual Connect Manager

**Correct Answer: C**

**Section: (none)**

**Explanation****Explanation/Reference:**

Explanation:

HPE BladeSystem and HPE OneView deliver a single infrastructure and single management platform with federated intelligence, automated for rapid service delivery and rock-solid reliability.

References: <http://www.thepinnaclegroup.com/hewlett-packard>

**QUESTION 29**

A customer needs a tower-based server that supports an E3-1200 v5 processor with 2 to 4 cores.  
Which server model should the architect recommend?

- A. ML30
- B. ML110
- C. ML150
- D. ML350

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

ML 30 Processor family: Intel® Xeon® E3-1200 product family; Intel Xeon E3-1200 v5 product family; Intel Core i3; Intel Pentium.  
Processor core available: 4 or 2

**QUESTION 30**

What is a characteristic of HPE Agentless Management on ProLiant Gen8 and Gen9 servers?

- A. It monitors thermal, power, and memory subsystems.
- B. It is automatically activated following the installation of an operating system.
- C. It requires management network ports to be enabled on the host operating system.
- D. It requires isolation of the management network from the data network.

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:



The HPE Agentless Management monitoris all key internal subsystems such as thermal, power, and memory.

References: <http://www8.hp.com/us/en/products/server-software/product-detail.html?oid=5219980>

