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| 1. In virtualized computing, a single computer is capable of supporting a single operating system.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *POINTS:* | 1 | | *REFERENCES:* | Overview of Virtual Machines and Virtualization Software | | *QUESTION TYPE:* | True / False | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 2. Many of the concepts used in today's virtualization products date back to IBM mainframe computers for the 1970s.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *POINTS:* | 1 | | *REFERENCES:* | Overview of Virtual Machines and Virtualization Software | | *QUESTION TYPE:* | True / False | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 3. The hypervisor intercepts and processes requests coming from the guest operating systems and then returns the results back to the virtual machine.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *POINTS:* | 1 | | *REFERENCES:* | Overview of Virtual Machines and Virtualization Software | | *QUESTION TYPE:* | True / False | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 4. A virtual machine can't share the use of a network adapter with the host.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *POINTS:* | 1 | | *REFERENCES:* | Hardware and Software Requirements for Virtualization | | *QUESTION TYPE:* | True / False | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 5. Cloud services are highly reliant upon the use of virtualization technology.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *POINTS:* | 1 | | *REFERENCES:* | Cloud Environments | | *QUESTION TYPE:* | True / False | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| **Multiple Choice** |

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| 6. What component of virtualization controls all physical memory, and thus has the ability to make any unused memory pages in each guest available for other virtual machines or the host computer?   |  |  |  | | --- | --- | --- | |  | a. | The guest operating system | |  | b. | The host operating system | |  | c. | The hypervisor | |  | d. | The BIOS |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | Hardware and Software Requirements for Virtualization | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 7. What virtualization technology makes it possible to avoid overhead associated with software-managed shadow page tables?   |  |  |  | | --- | --- | --- | |  | a. | Time Sliced Prioritization Method (TSPM) | |  | b. | Second Level Address Translation (SLAT) | |  | c. | Threaded Input / Output Translation (TIOT) | |  | d. | Virtual Disk Interface Layer (VDIL) |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | Hardware and Software Requirements for Virtualization | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 8. Which of the following does an operating system installed in a guest virtual machine do?   |  |  |  | | --- | --- | --- | |  | a. | interacts directly with host machine hardware | |  | b. | controls the hypervisor | |  | c. | interacts with hardware through the hypervisor | |  | d. | intercepts requests for an emulated hard drive |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | How Virtualization Software Works with Virtual Machines | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 9. What hypervisor uses a special guest called Domain 0 that loads along with the hypervisor and is used to directly access the hardware?   |  |  |  | | --- | --- | --- | |  | a. | VMWare ESXi | |  | b. | VMWare Workstation | |  | c. | Oracle VirtualBox | |  | d. | Xen |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | How Virtualization Software Works with Virtual Machines | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/27/2017 9:53 AM | |

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| 10. An ISO image file uses what format to store a disc's contents in a single file on a computer?   |  |  |  | | --- | --- | --- | |  | a. | Binary format (BIN) | |  | b. | Disc encoded structure format | |  | c. | ISO 9660 | |  | d. | ISO 1040 |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | Administrative and User Consoles | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 11. What type of cloud computing service provides hardware infrastructure along with necessary operating system software for running client applications?   |  |  |  | | --- | --- | --- | |  | a. | Platform as a Service | |  | b. | Software as a Service | |  | c. | Infrastructure as a Service | |  | d. | Hardware as a Service |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | Cloud Environments | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 12. What is the most commonly used form of a Storage Area Network?   |  |  |  | | --- | --- | --- | |  | a. | An iSCSI network | |  | b. | A Network Attached Storage device | |  | c. | A network shared folder | |  | d. | A shared, mounted Virtual Hard Disk file |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | Disk Support Features | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 13. What feature, supported by VMWare, allows the live migration of a running VM from one host to another?   |  |  |  | | --- | --- | --- | |  | a. | vMigration | |  | b. | vTarget | |  | c. | vMove | |  | d. | vMotion |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | Moving Virtual Machines | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 14. You are working in a VMware vSphere based environment, and have been asked to create a parent virtual machine that can be shared amongst many users. One of the requirements of this desired setup is that individual user changes must be kept separate. What is the best implementation based on the requirements given?   |  |  |  | | --- | --- | --- | |  | a. | The parent virtual machine should be cloned once for each user that will require access. | |  | b. | The parent virtual machine should be configured to allow user-specific snapshots. | |  | c. | The parent virtual machine should be configured to make use of linked clones. | |  | d. | The parent virtual machine should be configured with shared folders that are uniquely named per each user. |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | Migration Tools | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 15. What is the purpose of the NX/XD CPU feature present in most modern Intel and AMD processors?   |  |  |  | | --- | --- | --- | |  | a. | The feature enables the use of virtualization on the CPU. | |  | b. | The feature adds a layer of security by marking areas of memory as non-executable. | |  | c. | The feature allows for the use of virtual peripheral devices. | |  | d. | The feature increases the efficiency of RAM when used with virtual machines. |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | Hardware and Software Requirements for Virtualization | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 16. What is the purpose of a shadow page table when a hypervisor is used?   |  |  |  | | --- | --- | --- | |  | a. | It tracks the memory pages allocated by each guest VM. | |  | b. | It tracks the hard disk page file usage by each guest VM. | |  | c. | It tracks the amount of I/O utilized by each guest VM. | |  | d. | It tracks the CPU paging performance of each guest VM. |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | Hardware and Software Requirements for Virtualization | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 17. Your work environment consists of a large number of Mac OS X based devices. The developers in your network have requested virtualization software be installed for their use. What product should you use?   |  |  |  | | --- | --- | --- | |  | a. | VMware Workstation | |  | b. | Hyper-V | |  | c. | VMware Fusion | |  | d. | Xen |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | Workstation Virtualization Products | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 18. What is the oldest version of Windows Server to support the use of Microsoft's Hyper-V product?   |  |  |  | | --- | --- | --- | |  | a. | Windows Server 2003 | |  | b. | Windows Server 2008 | |  | c. | Windows Server 2012 | |  | d. | Windows Server 2016 |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | Virtualization in the Data Center | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 19. Why are type-1 hypervisors more efficient than type-2 hypervisors?   |  |  |  | | --- | --- | --- | |  | a. | A type-1 hypervisor is able to overcommit RAM availability to VM guests. | |  | b. | A type-1 hypervisor is capable of running a greater variety of operating systems. | |  | c. | A type-1 hypervisor uses an abstraction layer in the host OS to access hardware. | |  | d. | A type-1 hypervisor accesses the physical hardware directly. |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | How Virtualization Software Works with Virtual Machines | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 20. When a Xen based guest VM makes a request for a hardware resource, such as reading from a disk, where is the request sent to?   |  |  |  | | --- | --- | --- | |  | a. | It is sent directly to the hardware on the host machine. | |  | b. | It is sent to the Domain 0 guest. | |  | c. | It is sent to the host operating system, which then handles the request. | |  | d. | It is queued into the guest VM's I/O page table. |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | How Virtualization Software Works with Virtual Machines | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 21. What statement regarding the use of Hyper-V is accurate?   |  |  |  | | --- | --- | --- | |  | a. | Hyper-V includes native support for USB devices. | |  | b. | Hyper-V requires a 64-bit processor with hardware virtualization support. | |  | c. | Hyper-V can only be used to host Microsoft based virtual machines. | |  | d. | Hyper-V does not include support for PATA based disk systems. |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | Administrative and User Consoles, Virtualization in the Data Center | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/27/2017 9:53 AM | |

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| 22. When using the VMware Horizon software, where do client desktop operating systems run?   |  |  |  | | --- | --- | --- | |  | a. | They run on a host running VMware Workstation Pro. | |  | b. | They run on a Windows Server 2012 or later host using Hyper-V | |  | c. | They run on a Citrix XenServer. | |  | d. | They run on a VMware vSphere ESXi host. |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | Virtual Desktop Infrastructure | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 23. The VDI disk file format is native to what virtualization platform?   |  |  |  | | --- | --- | --- | |  | a. | Oracle VirtualBox | |  | b. | VMware | |  | c. | Microsoft Virtual PC | |  | d. | Microsoft Hyper-V |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | Disk Support Features | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 24. What statement regarding virtual disk types is accurate?   |  |  |  | | --- | --- | --- | |  | a. | A fixed size virtual disk does not immediately allocate the configured size of the disk. | |  | b. | A fixed size virtual disk has reduced performance in comparison to a dynamic disk. | |  | c. | A dynamic disk does not immediately allocate the configured size of the disk. | |  | d. | A dynamic disk is only suitable for hosts with large amounts of storage to accommodate their size. |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | Disk Support Features | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 25. You have been tasked with creating a virtual machine that will require access to the Internet, but should be prevented from sending and receiving packets directly from the physical network. What network mode should be used?   |  |  |  | | --- | --- | --- | |  | a. | local mode | |  | b. | bridged mode | |  | c. | shared (NAT) mode | |  | d. | host only mode |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | Network Support | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/27/2017 9:53 AM | |

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| 26. You have been tasked with creating a virtual machine that will be providing hosted services on the physical network, and possibly the Internet. What network mode should be used?   |  |  |  | | --- | --- | --- | |  | a. | local mode | |  | b. | bridged mode | |  | c. | shared mode | |  | d. | host only mode |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | Network Support | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 27. What format enables a virtual machine to be moved between virtualization platforms, and is often used for deploying virtual appliances?   |  |  |  | | --- | --- | --- | |  | a. | Virtual Machine Disk (VMDK) | |  | b. | Virtual Disk Image (VDI) | |  | c. | Open Virtualization Format (OVF) | |  | d. | Shared Virtualization System (SVS) |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | Moving Virtual Machines | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 28. What is NOT a product designed specifically for the virtualization of applications within a VDI environment?   |  |  |  | | --- | --- | --- | |  | a. | VMware Fusion | |  | b. | Microsoft App-V | |  | c. | Altiris Software Virtualization Solution | |  | d. | VMware ThinApp |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | Application Virtualization | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 29. You are employed by a cloud service provider that offers virtual machine services along with virtual switches, storage, firewalls, and other virtual devices. What type of cloud environment does your employer sell?   |  |  |  | | --- | --- | --- | |  | a. | Infrastructure as a Service | |  | b. | Platform as a Service | |  | c. | Software as a Service | |  | d. | Core as a Service |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | Cloud Environments | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 30. What open standard was developed as a result of collaboration between NASA and Rackspace?   |  |  |  | | --- | --- | --- | |  | a. | Open Virtualization Format | |  | b. | Virtual Machine Disk format | |  | c. | FreeVirt | |  | d. | OpenStack |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | Cloud Environments | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| **Matching** |

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| Match each item with a statement below.   |  |  | | --- | --- | | a. | ballooning | | b. | bridged mode | | c. | dynamic virtual disk | | d. | hyperthreading | | e. | hypervisor | | f. | linked clones | | g. | Open Virtualization Format | | h. | server sprawl | | i. | thick client | | j. | virtual appliance |  |  |  | | --- | --- | | *REFERENCES:* | Glossary | | *QUESTION TYPE:* | Matching | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/27/2017 9:54 AM | |

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| 31. A technique used by hypervisors to cause a guest VM to release infrequently used memory pages.   |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | |

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| 32. A networking mode that allows traffic from a virtual machine to pass through unchanged to the physical network as though it were directly attached.   |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | |

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| 33. A virtual disk file that allocates space on the hosting hardware only as it is required to satisfy the needs of the guest VM.   |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | |

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| 34. Used to create additional logical cores that can be used by the hypervisor to improve the performance of virtual machines.   |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | |

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| 35. A piece of software that enables the sharing of hardware resources between the hosting operating system and virtual environments.   |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | |

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| 36. A method of separately storing any changes to a parent VM made by a specific user such that it does not affect the parent VM.   |  |  | | --- | --- | | *ANSWER:* | f | | *POINTS:* | 1 | |

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| 37. A standard created by industry wide vendors in various areas of virtualization for the purpose of copying or moving virtual machines between different platforms.   |  |  | | --- | --- | | *ANSWER:* | g | | *POINTS:* | 1 | |

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| 38. An accumulation of specialized and departmental servers that increases costs of computer hardware and maintenance, as well as power consumption.   |  |  | | --- | --- | | *ANSWER:* | h | | *POINTS:* | 1 | |

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| 39. A personal computer that runs its own operating system and applications.   |  |  | | --- | --- | | *ANSWER:* | i | | *POINTS:* | 1 | |

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| 40. A software package that includes a virtual machine containing a preinstalled and configured application that's ready to use.   |  |  | | --- | --- | | *ANSWER:* | j | | *POINTS:* | 1 | |

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| **Subjective Short Answer** |

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| 41. What is the difference between a template and a clone?   |  |  | | --- | --- | | *ANSWER:* | The main difference between a template and a clone is that the clone is a running VM and the template is not. Templates are molds that contain a preconfigured, preloaded VM that can be used to "stamp" out copies of a commonly used server or virtual desktop. Virtualization software that support templates have a check box filter on a virtual machine that allows the administrator flag the VM as a template. Virtual machines that are flagged as templates cannot be run, but they can be used to create new VMs with all the features included in the template. | | *POINTS:* | 1 | | *REFERENCES:* | Parenting and Cloning | | *QUESTION TYPE:* | Subjective Short Answer | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 42. How do the three types of cloud computing differ from each other?   |  |  | | --- | --- | | *ANSWER:* | A public cloud can be configured to offer services to anyone connected to the Internet with a valid account. A private cloud is hosted by a company that provides the private cloud service using virtual machines and applications they maintain in their own data centers. A hybrid cloud in conjunction with load balancing can allow for a private cloud service to offload some services to a public cloud service provider during high utilization periods. | | *POINTS:* | 1 | | *REFERENCES:* | Cloud Environments | | *QUESTION TYPE:* | Subjective Short Answer | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 43. What is the difference between a thick client and a thin client?   |  |  | | --- | --- | | *ANSWER:* | A thick client refers to a computer that runs its own operating system and applications. A thin client uses a connection broker to connect a user's device to their virtual desktop. Many devices are capable of functioning as thin clients, such as desktop computers, notebooks, and tablets. | | *POINTS:* | 1 | | *REFERENCES:* | Virtual Desktop Infrastructure | | *QUESTION TYPE:* | Subjective Short Answer | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 44. Why has VDI (Virtual Desktop Infrastructure) become such a major player in IT data centers?   |  |  | | --- | --- | | *ANSWER:* | VDI allows the IT staff to host all user desktop environments on virtual machines running on powerful data center hosts or servers. IT staff can quickly deploy new virtual desktop environments or update existing environments at the data center using administrative software tools as compared to going out to the user’s office or having the user bring their computer into the data center for maintenance. In addition, the VDI allows the desktop environment to be accessed from any location using a variety of devices including notebooks, tablets, and smart phones. | | *POINTS:* | 1 | | *REFERENCES:* | Virtual Desktop Infrastructure | | *QUESTION TYPE:* | Subjective Short Answer | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/27/2017 9:55 AM | |

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| 45. What does a configuration file for a virtual machine contain?   |  |  | | --- | --- | | *ANSWER:* | The configuration file contains settings for virtual hardware, including the amount of physical RAM the virtual machine uses; the name, size, and location of the virtual disk file; CD/DVD-ROM and floppy drive settings; network configuration; port settings; and other configuration options. | | *POINTS:* | 1 | | *REFERENCES:* | How Virtualization Software Works with Virtual Machines | | *QUESTION TYPE:* | Subjective Short Answer | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 46. How might a software developer benefit from the use of virtualization?   |  |  | | --- | --- | | *ANSWER:* | Software developers can use virtual machines to test software by running the programs in different OS environments. Instead of needing multiple computers or having to restart a computer in a different OS, software developers can simply open a virtual machine running the OS they want and test their programs. In addition, some virtualization software can be linked to the developer's programming environment for easy debugging. | | *POINTS:* | 1 | | *REFERENCES:* | Workstation Virtualization Products | | *QUESTION TYPE:* | Subjective Short Answer | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 47. What is the difference between a Storage Area Network and a Network Attached Storage device?   |  |  | | --- | --- | | *ANSWER:* | In NAS, the storage device acts as a file server, allowing access to files and folders on the network based on name. The problem with NAS devices is they typically have slower access times than local hard drives and are designed to run on slower Ethernet networks. In a SAN, the storage devices are attached to a dedicated high speed network and accessed by blocks in much the same way that disks are accessed on a local file system. | | *POINTS:* | 1 | | *REFERENCES:* | Disk Support Features | | *QUESTION TYPE:* | Subjective Short Answer | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 48. What is the difference between a fixed size virtual disk and a dynamic virtual disk?   |  |  | | --- | --- | | *ANSWER:* | A fixed-size virtual disk creates a file on a host computer that takes up exactly the amount of space provisioned for the virtual disk. A dynamic virtual disk on the other hand, utilizes only the amount of space required by the virtual machine. In terms of performance, a fixed size virtual disk has the advantage. | | *POINTS:* | 1 | | *REFERENCES:* | Disk Support Features | | *QUESTION TYPE:* | Subjective Short Answer | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 49. What is the Open Virtualization Format, and how does it facilitate the migration of virtual machines between hypervisors?   |  |  | | --- | --- | | *ANSWER:* | OVF is a standard created by industry-wide vendors in various areas of virtualization for the purpose of copying or moving virtual machines between different platforms. For example, you could install, configure, and test a Windows mail server on a workbench using Oracle VM VirtualBox. After developing your Windows mail server using VirtualBox, you can use the export function to create a set of OVF files. You next use vSphere’s option to import OVF files to place the virtual machine on your vSphere Hypervisor (ESXi). | | *POINTS:* | 1 | | *REFERENCES:* | Moving Virtual Machines | | *QUESTION TYPE:* | Subjective Short Answer | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |

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| 50. What are the three network modes that can be used for a virtual machine, and what does each mode do?   |  |  | | --- | --- | | *ANSWER:* | The three network modes are as follows: \* local mode / host only mode \* bridged mode \* shared (NAT) mode In local mode, a virtual machine's emulated NIC is plugged into a virtual switch that includes the host computer and other virtual machines running in local mode on the host computer. Bridged mode allows a virtual machine to utilize the physical network as though it were directly attached to it, and communicate with other hosts on the network, as well as the Internet. Finally, NAT mode allows access to outside networks yet isolates the virtual machine, preventing it from sending and receiving packets across the physical network. | | *POINTS:* | 1 | | *REFERENCES:* | Network Support | | *QUESTION TYPE:* | Subjective Short Answer | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/2/2017 10:57 PM | | *DATE MODIFIED:* | 3/2/2017 10:57 PM | |