

***Hands On Microsoft Windows Server 2019 3rd
edition Eckert Test Bank***

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1. Storage pinning is the process of planning hardware for a specific server within an organization.

- a. True
- b. False

ANSWER: False

2. The Windows 10 Education edition supports Hyper-V but not nested virtualization.

- a. True
- b. False

ANSWER: False

3. Hyper-V supports nested virtualization that can be used to create virtual machines within another virtual machine.

- a. True
- b. False

ANSWER: True

4. Malaika uses the Edge browser on her computer to access a website. The browser sends a request to another computer over the Internet, which returns web page data that is displayed on the browser.

Which of these entities is the server?

- a. Malaika's computer
- b. The Edge browser
- c. The website address
- d. The responding computer

ANSWER: d

5. Which of the following statements is true of a client on a computer network?

- a. It is a server that is located within the physical premises of an organization.
- b. It is a computer that shares resources in response to a request from another computer.
- c. It is a computer that requests for resources from another computer on the network.
- d. It is a server that is located outside an organization's premises and accessed via the Internet.

ANSWER: c

6. Linwood is the IT manager of a small organization, Turtle Designs, with less than 50 employees. Caroline, his boss, asks him to set up a computer that will act as the central repository for the company's data. Linwood estimates the costs and suggests using an Internet-based service instead.

What is Linwood recommending in this scenario?

- a. An on-premise server
- b. A cloud-based server
- c. A client
- d. A network

ANSWER: b

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7. Rhonda's company has a rack containing one email server, file server, web server, firewall server, UPS, SAN, and management station. Owing to a thunderstorm, a ten-block radius surrounding the company faces a power outage. Rhonda, who is working from home, tries sending an email to a colleague, but the email does not get sent.

Which of the following is the most likely cause for this issue?

- a. The SAN on the rack malfunctioned.
- b. The management station on the rack malfunctioned.
- c. The blackout caused all the servers on the rack to shut down because there is no power supply.
- d. The blackout took down the Internet, so Rhonda can't reach the email server.

ANSWER: d

8. Chen is a freelance web developer who uses a Windows 10 computer. When she needs to test her web application on a different operating system, she sends it to her friend who has other operating systems installed on multiple devices. This is a time-consuming process. She's looking for a way to test the web application across different operating systems on her own computer.

Which of the following features should she use?

- a. Journaling
- b. Virtualization
- c. Sandboxing
- d. Deduplication

ANSWER: b

9. Identify the true statement about Type 2 hypervisors.

- a. They can run independent of a host operating system.
- b. They can interact with the hardware directly.
- c. They can run multiple operating systems on a single host.
- d. They self-contain a small operating system.

ANSWER: c

10. Don is the system administrator for an organization that conducts virtual IT training sessions. Each participant, during these training sessions, creates multiple unique applications to address various problems. The applications have different hardware resource requirements. Don needs to set up a virtual lab with twenty Windows operating systems on 1 TB storage space for two different training programs.

Help Don choose the right size of the virtual hard disk files.

- a. Don should use thin provisioning and fix the size of each virtual disk to 60 GB.
- b. Don should use thick provisioning and fix the size of each virtual disk to 100 GB.
- c. Don should use thin provisioning.
- d. Don should use thick provisioning.

ANSWER: c

11. Nadira is testing an application that needs to work on multiple operating systems. For this purpose, she uses Hyper-V

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to set up a Windows Server 2019 virtual machine (named VM1) and a Linux-based virtual machine (named VM2) on her host Windows 10 operating system. She sets up a third virtual machine, Windows Server 2012 (named VM3), to test the compatibility of the application between Windows Server 2019 and 2012 versions.

Which of the following must be true if VM3 was set up successfully using nested virtualization?

- a. Nadira removed VM2 to accommodate VM3.
- b. Nadira powered off VM1, ran a PowerShell command, and powered on VM1.
- c. Nadira ran the following PowerShell command: `Get-VMNetworkAdapter -VMName VM3 | Set-VMNetworkAdapter -MacAddressSpoofing On`.
- d. Nadira enabled nested virtualization in Windows 10 using a PowerShell command.

ANSWER: b

12. Mahmood works as a full stack web developer at Insignia Informatics. As one of the senior developers, Mahmood is often tasked with testing web applications built by his team. Often, he finds himself testing multiple web applications simultaneously over a short period. Mahmood uses a separate virtual machine to run each application in isolation. This often causes a resource crunch because each virtual machine uses large amounts of system resources, and Mahmood cannot be as productive as he wants to be.

What would you advise Mahmood?

- a. Avoid sandboxing in a testing environment
- b. Run these web applications in containers
- c. Increase the scalability of the system
- d. Use nested virtualization instead

ANSWER: b

13. Walter Wells, Inc., a company that builds robotic process automation (RPA) applications, uses Windows Server 2016 to run several Linux and Windows virtual machines.

Which of the following statements, if true, would make upgrading to Windows Server 2019 a good choice?

- a. Walter Wells spends a considerable amount of money on encrypting Linux virtual machines.
- b. Walter Wells does not use storage replicas or storage spaces.
- c. Walter Wells is considering removing all the Linux virtual machines and switching entirely to Windows.
- d. Walter Wells currently outsources its hardware maintenance operations to an external vendor.

ANSWER: a

14. Raymond is a system administrator at Kelly Consulting. He's trying to automate some security features using Windows Server. One of the tasks he's trying to accomplish is automatically blocking any Outlook rules that are set to forward emails. Particularly, he's attempting to write a script that blocks any rules that automatically forward emails to external parties.

Which of the following tools would be most effective in completing this task?

- a. Microsoft Management Console
- b. Azure Active Directory

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- c. Windows PowerShell
- d. Windows Admin Center

ANSWER: c

15. Remtax offers tax consulting services over the Internet. It assists people in preparing their income tax returns.

In which of the following scenarios should Remtax use Windows Server Core or Nano Server?

- a. The server will not be dedicated to a specific function but will serve multiple functions.
- b. The server will be managed by a novice administrator that fulfills other roles in the company.
- c. The server will be dedicated to web services and accessed via the Internet.
- d. The server will also function as an Active Directory domain controller.

ANSWER: c

16. Eileen is a Web app developer. All the apps that Eileen builds run in Linux containers on the cloud. She currently uses a Windows 7 operating system.

Why should Eileen consider upgrading to Windows 10?

- a. Windows 10 automatically encrypts Linux containers.
- b. Windows 10 provides Server Core and Nano Server options.
- c. Windows 10 has the Windows Server Azure Network Adapter.
- d. Windows 10 has Windows Subsystem for Linux.

ANSWER: d

17. Candace works as a system administrator at Capnia Systems, a product company with over 250 employees. She receives an email from her boss that says that one of the servers is running slow. The server is running the Standard Edition of Windows Server 2019, and the hardware includes HDDs and SSDs. Upon investigation, she finds that some frequently accessed files are being stored on HDDs, while other smaller and infrequently used files are stored on SSDs.

Which feature should Candace enable to improve the efficiency of the server?

- a. Storage pinning
- b. Storage tiering
- c. Capacity planning
- d. Data deduplication

ANSWER: b

18. Which of the following is true of Storage Server 2019?

- a. It can have a maximum memory of 24 TB.
- b. It can host unlimited virtual machines.
- c. It cannot be purchased from Microsoft directly.
- d. It can be download for free and used in any environment.

ANSWER: c

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19. Tamara wants to install Server Core on a virtual machine on her Windows Server 2019 computer. She tries installing it but fails.

Which of the following is most likely to have caused the installation failure?

- a. Server Core cannot be installed on personal computers.
- b. Tamara's computer does not contain an optical drive.
- c. Server Core requires at least a 1.4 GHz 64-bit processor.
- d. Tamara's computer has 30 GB free hard disk space.

ANSWER: d

20. Where can the most up-to-date list of compatible hardware available for Windows Server 2019 be found?

- a. Windows Admin Center
- b. Microsoft Management Console
- c. Windows Server Catalog
- d. Windows Server Configuration Wizard

ANSWER: c

21. Satish wants to install Windows Server 2019 Essentials Edition on his computer. The hardware specifications of his system are as follows: 3 GHz 64-bit processor, 16 GB memory, and 50 GB storage.

If Satish installed the server using Rufus, which of the following is most likely true?

- a. Satish's computer does not meet the minimum storage requirements.
- b. Satish installed Server Core instead of the full version.
- c. Satish's computer does not have an optical disk drive.
- d. Satish has installed the server over the Internet from a remote device.

ANSWER: c

22. You are in the process of installing Windows Server 2019 Standard Edition on your computer. You have downloaded the corresponding ISO file and burned it to a DVD.

Which of the following steps should you take next?

- a. Change the boot order in the BIOS.
- b. Insert the DVD after turning on your computer.
- c. Copy the ISO image to a bootable USB drive.
- d. Download Burnaware or Rufus.

ANSWER: a

23. You are attempting to upgrade a server from Windows Server 2008 R2 to Windows Server 2019 Standard Edition.

What must be done in order to accomplish the upgrade?

- a. The Windows Server 2019 disc provides a direct upgrade path for Server 2008 R2, so no additional steps are

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required to perform the upgrade.

- b. The server should be updated to the latest service pack for 2008 R2 and then upgraded to Server 2012 R2, after which the server can be upgraded to Server 2019.
- c. The server must run a special upgrade while Server 2008 R2 is running, requiring the migration of server roles to the new OS and merging of configuration files.
- d. The server can't be upgraded to Server 2019, as no upgrade path exists. You must perform a clean install.

ANSWER: b

24. What is the IP address that is assigned to the network loopback interface?

- a. 0.0.0.0
- b. 255.255.255.255
- c. 127.0.0.1
- d. 10.0.0.0

ANSWER: c

25. Raphael has successfully installed the Essentials Edition of Windows Server 2019 on his computer. He's completing some post-installation configuration tasks including naming the server. He has four options.

Which of the following names should Raphael pick for the newly installed server and why?

- a. Home-FileServer-Raphael because it contains his name and is at least 15 characters
- b. COR-WEB-12 because it contains allowed characters and is shorter than 15 characters
- c. TEL COMP F3 because it contains a mix of letters, numbers, and spaces
- d. W@\$h!nGT0n, because it contains special characters, numbers, upper case letters, and lower case letters

ANSWER: b

26. Janice has set up a Windows Server 2019 lab environment to practice labs related to her training. The base operating system is Windows 10. She has three Windows Server virtual machines running.

If one of the virtual machines is running inside another virtual machine, which of the following must also be true?

- a. Janice is using a Type-2 hypervisor to control both virtual machines.
- b. Janice has enabled nested virtualization on the Windows 10 operating system.
- c. Janice has enabled nested virtualization on the Windows Server operating system.
- d. Janice is using the Windows Server 2012 R2 Edition in the virtual machines.

ANSWER: b

27. Explain the nested virtualization feature of Hyper-V.

ANSWER: In comparison with other virtualization providers, Hyper-V allows users to run virtual machines within another virtual machine. In such a scenario, the second set of virtual machines is nested within the first virtual machine, which itself is hosted within a host management operating system. Hence the term nested virtualization. For nested virtualization to work, management operating systems of the host as well as the virtual host must be one of Windows 10, Windows Server 2016, or Windows Server 2019.

REJ: Please explore the section "Understanding Windows Server Virtualization" for more information.

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28. What is the advantage of using Hyper-V containers?

ANSWER: When running on Windows Server, containers do not contain a kernel and hence rely on the kernel of the Windows Server operating system. If one of the apps running in the container has a vulnerability that provides unauthorized access to the underlying kernel, it could impact other containers running on the same kernel. In addition, too many containers running on the same kernel can cause it to slow down or crash. Hyper-V can be used to provide a separate copy of the kernel to each container. These Hyper-V containers combine the functionality of Hyper-V with Windows containers and provide security and performance improvements to the apps that they contain.

REJ: Please explore the section “Understanding Windows Server Virtualization” for more information.

29. What is a domain, and how does it affect computers and users that are members of the domain?

ANSWER: A domain is a grouping of network objects, such as computers, servers, and user accounts, that provides for centralized management through special servers called domain controllers. Computers and users in a domain can be managed to determine what resources they can access, such as printers and shared folders. A domain controller provides a token to authenticated users once they log onto a computer connected to the domain. This token allows users automatic access to other resources on the domain for which access has been granted. This feature is called single sign-on.

REJ: Please explore the section “Active Directory” for more information.

30. What is the self-healing feature of NTFS, and how does it work?

ANSWER: Self-healing disks is a feature of NTFS introduced in Windows Server 2008. Self-healing means that when software encounters a damaged disk area, NTFS can heal the area without having to take down the server. NTFS self-heals by generating a "worker thread" that repairs data from the damaged area. The data is not available to the software until the worker thread completes its work. The next time the software wants to access that data, it is available for use. Prior to Windows Server 2008, a damaged disk area meant that you had to reboot the server into Safe Mode (offline to users) and run the chkdsk utility to rebuild the data in the damaged area.

REJ: Please explore the section “Volume and Filesystem Features” for more information.

31. What is the difference between multitasking and multithreading?

ANSWER: Multitasking is the ability to run two or more programs at the same time. For example, Microsoft Word can print a document simultaneously when Microsoft Excel can calculate the sum of a column of numbers. Multithreading is the capability of programs written to run several program code blocks, or threads, at the same time. For instance, a Microsoft Access database query runs a thread to pull data out of the database, while another thread generates a subtotal of data already obtained.

REJ: Please explore the section “Multitasking and Multithreading” for more information.

32. How do the different versions of Windows Server 2019 handle CAL and core-based licenses?

ANSWER: The Standard and Datacenter Editions require both CALs and core-based licensing. The Essentials Edition uses processor-based (number of processors) licensing and no CALs are required. Windows Storage Server 2019 cannot be purchased directly from Microsoft, and Microsoft Hyper-V Server 2019 is free to download and use.

REJ: Please explore the section “Windows Server 2019 Editions” for more information.

33. After you begin the installation process, how do you ensure that you install the full Windows Server and not just the Server Core?

ANSWER: Standard Edition and Datacenter Edition are often included on the same installation media, and the options available can be misleading because the Server Core small footprint installation option is the default for each edition. For example, you should select the Windows Server 2019 Datacenter (Desktop Experience) option if you wish to have a full Windows Server installation of Datacenter Edition. If you select the Windows Server

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2019 Datacenter option, the installation program installs the Server Core small footprint option for Datacenter Edition

REJ: Please explore the section “Completing the Installation Process” for more information.

34. How does TCP provide reliable end-to-end delivery of data?

ANSWER: When you transfer information across a network such as the Internet, that information is often divided into many thousands of small IP packets. Each of these packets may take a different physical route when reaching its destination as routers can transfer information to multiple interconnected networks. TCP ensures that packets can be assembled in the correct order at their destination regardless of the order in which they arrive. Additionally, TCP ensures that any lost packets are retransmitted.

REJ: Please explore the section “Configuring the Network” for more information.

35. What is a subnet mask in the context of IPv4? Explain with an example.

ANSWER: A subnet mask defines which part of a computer’s IP address is the network ID and which part the host ID. ANDing a subnet mask with an IP address results in the network ID. Consider the IP address 10100110.00110100.00000000.00000001 (166.52.0.1 in decimal) with a subnet mask of 11111111.11111111.00000000.00000000 (255.255.0.0 in decimal). The first two octets (containing 255) are the network portion and the last two octets (containing 0) are the client portion. When the network portions are ANDed (10100110.00110100 AND 11111111.11111111), the result is 10100110.00110100 (166.52), the network ID. When the host portions are ANDed (00000000.00000001 AND 00000000.00000000), the result is 00000000.00000001 (0.1), the host ID. Thus, the IP address 166.52.0.1 (with subnet mask 255.255.0.0) identifies the first computer (host portion 0.1) on the 166.52 network (network portion 166.52).

REJ: Please explore the section “Understanding IPv4” for more information.

36. Rafiq uses Windows 10 Professional. He has enrolled in a Windows Server course. How can he practice the lab exercises on his system?

ANSWER: Rafiq can use the Hyper-V feature on his Windows 10 machine to create a virtual machine. Windows 10 Professional supports Hyper-V and nested virtualization. Windows 10 Enterprise and Education editions also support these features.

REJ: Please explore the section “Selecting a Windows Server 2019 Lab Environment” for more information.