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#### **Lecture Assessment**

#### Question 1

There are many differences between the Windows Server 2016 and the 2008 R2. These differences include:

## Security:

Windows Server 2016 has the capacity to run on a Hyper-V virtual machine, which makes it more secure than doing so on a physical machine. It has inbuilt antivirus security, active Directory Domain Services, which streamlines user account and permission management and has Windows Defender, which guards against malware The 2008 R2 doesn't have any of these features which makes it less secure than the Windows Server 2016.

# **Datacentre Operations:**

The most current version prior to the release of Windows Server 2016 was Windows Server 2008 R2. It provided features like Active Directory, a centralized database that houses data about networked things. Additionally, it included Windows PowerShell, a command-line interface that facilitates task automation.

The most recent edition of Windows Server, Windows Server 2016, has a ton of new features. One of the most significant is that Hyper-V containers—lightweight virtual machines ideal for running programs like SharePoint or SQL Server—can now be used. Additionally, it offers a feature called Nano Server, a very compact installation that's excellent for servers that don't have much space for a GUI.

# Support Developers:

Both Windows Server 2016 and 2008 R2 provide developer support, however there are some significant distinctions. We'll look at what those are now.

Microsoft has significantly simplified the process for developers to create scalable and cloud-friendly apps with Windows Server 2016. The best of both worlds may now be used by developers to run their apps in a hybrid environment. They may access their on-premises data while utilizing the scalability and cost of the cloud. Although Windows Server 2008 R2 doesn't provide quite as many functionalities for developers, it does have a few useful tools to help with the process. Additionally, because it has a longer track record, the developer community is more willing to support it.

#### Question 2

To improve the CPU performance the following process can be used: On the web server, take control of the memory cache and define network timeouts. Set the number of threads a web server will use. Boost Web client file download efficiency. Indicate the timeout period for all Web application agents as well as if more than one Web application agent can run concurrently. Use the HTTP POST command to limit the amount of data that users can transmit to the server.

The overall website quality depends on the capacity of the server. If the server is struggling to host websites, it is most likely to hardware related issues. Therefore, in order to run several websites, the

server hardware (CPU, Ram) should be at recommended specs. In conclusion it is not logical to host five different websites on the server due to poor CPU performance.

Question 3

Role based or feature-based installation.

**Question 4** 

The administration's password is important for security and to control access to the server. The password must have these requirements to ensure that it is safe and secure:

It cannot use more than two consecutive characters of your account name or full name.

Be at least six characters in length.

Contain characters from three of the following four categories:

Uppercase letters (A to Z)

Lowercase letters (a to z)

Numbers (0 to 9)

Symbols (for example: !, \$, # or %)

Ax03!#

The above is the password generated using the guidelines.

A and x are the Uppercase and Lowercase categories. 0 and 3 are the Numbers category. ! and # are the Symbols category and the password is at least 6 characters in length.

Question 5

Graphical user interface (GUI)

Command line interface (CLI)

Menu-driven user interface.

Touch user interface.

Voice user interface (VUI)

Form-based user interface.

Natural language user interface.