

## **Mod 01 Introduction to Linux**

### **Multiple Choice**

1. The United States Air Force was able to install Linux on a popular gaming console and then connect over 1,700 of these systems together to work as one big supercomputer. Which of the following types of technologies did they implement?

- a. herding
- b. cloud computing
- c. group computing
- d. clustering

**ANSWER:** d

**RATIONALE:** When multiple, or many, computers are joined together to work as one, it is called a cluster.

**POINTS:** 1

**QUESTION TYPE:** Multiple Choice

**HAS VARIABLES:** False

**LEARNING OBJECTIVES:** Eckert.Linux+6e.24.1.5 - Explain the common uses of Linux in industry today.

**TOPICS:** 1.5 Common Uses of Linux

**KEYWORDS:** Bloom's: Understand

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2. Which of the following terms describes a type of useful and legitimate software that is distributed by a developer at no charge and with no source code?

- a. shareware
- b. freeware
- c. malware
- d. tryware

**ANSWER:** b

**RATIONALE:** Freeware is a type of software that is distributed for free by a software developer, but the source code is not distributed along with it. Shareware is similar to freeware but requires payment after a period of time, malware is malicious software, and tryware does not exist.

**POINTS:** 1

**QUESTION TYPE:** Multiple Choice

**HAS VARIABLES:** False

**LEARNING OBJECTIVES:** Eckert.Linux+6e.24.1.2 - Outline the key features of the Linux operating system.

**TOPICS:** 1.2 The Linux Operating System

**KEYWORDS:** Bloom's: Remember

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3. What term refers to a person that manages the Linux components that allow developers to push new versions

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of their software to the cloud?

- a. orchestrator
- b. build automator
- c. integration specialist
- d. DevOp

**ANSWER:** d

**RATIONALE:** The people who manage the workflow whereby software is added to a cloud environment are called DevOps because they are system operators (ops) that support web app development (dev).

**POINTS:** 1

**QUESTION TYPE:** Multiple Choice

**HAS VARIABLES:** False

**LEARNING OBJECTIVES:** Eckert.Linux+6e.24.1.6 - Describe how Linux is used in the cloud.

**ACCREDITING STANDARDS:** Eckert.XK0-005.24.3.4 - Summarize common infrastructure as code technologies.

**TOPICS:** 1.6 Linux in the Cloud

**KEYWORDS:** Bloom's: Remember

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4. Which of the following types of cloud delivery models would a containerized web app be considered?

- a. SaaS
- b. PaaS
- c. IaaS
- d. MaaS

**ANSWER:** b

**RATIONALE:** Web apps that are hosted within containers are delivered using a container runtime on an underlying operating system platform and referred to as Platform as a Service, or PaaS.

**POINTS:** 1

**QUESTION TYPE:** Multiple Choice

**HAS VARIABLES:** False

**LEARNING OBJECTIVES:** Eckert.Linux+6e.24.1.6 - Describe how Linux is used in the cloud.

**TOPICS:** 1.6 Linux in the Cloud

**KEYWORDS:** Bloom's: Remember

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5. Which of the following services does an MTA provide?

- a. web
- b. mail

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- c. DNS
- d. certificate

**ANSWER:** b

**RATIONALE:** Mail Transfer Agents (MTAs) provide email routing on Linux systems.

**POINTS:** 1

**QUESTION TYPE:** Multiple Choice

**HAS VARIABLES:** False

**LEARNING OBJECTIVES:** Eckert.Linux+6e.24.1.5 - Explain the common uses of Linux in industry today.

**ACCREDITING STANDARDS:** Eckert.LPIC-1.24.108.3 - Mail Transfer Agent (MTA) basics.

**TOPICS:** 1.5 Common Uses of Linux

**KEYWORDS:** Bloom's: Remember

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6. What term is used to refer to a specific variety of UNIX?

- a. distribution
- b. version
- c. flavor
- d. platform

**ANSWER:** c

**RATIONALE:** Each UNIX operating system is called a unique flavor of UNIX. For example, FreeBSD and macOS are two different flavors of UNIX.

**POINTS:** 1

**QUESTION TYPE:** Multiple Choice

**HAS VARIABLES:** False

**LEARNING OBJECTIVES:** Eckert.Linux+6e.24.1.3 - Describe the origins of the Linux operating system.

**TOPICS:** 1.3 The History of Linux

**KEYWORDS:** Bloom's: Remember

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7. Which of the following types of servers can be used to cache requested Internet resources so that they can be more quickly delivered to users requesting the same resource while at the same time reducing the burden on the external network connection to the Internet for an organization?

- a. file server
- b. DNS server
- c. proxy server
- d. DHCP server

**ANSWER:** c

**RATIONALE:** A proxy server requests Internet resources on a user's behalf and can be configured to

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cache results so that multiple users requesting the same content don't require contacting the resource individually.

*POINTS:* 1

*QUESTION TYPE:* Multiple Choice

*HAS VARIABLES:* False

*LEARNING OBJECTIVES:* Eckert.Linux+6e.24.1.5 - Explain the common uses of Linux in industry today.

*TOPICS:* 1.5 Common Uses of Linux

*KEYWORDS:* Bloom's: Remember

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8. Which of the following types of encryption uses a pair of keys known as public and private?

- a. symmetric
- b. asymmetric
- c. SHA1 hashing
- d. message digest

*ANSWER:* b

*RATIONALE:* Asymmetric encryption uses a public/private key pair. Symmetric encryption uses a single key for encryption and decryption, while SHA1 hashing (also called a message digest) does not use keys and is used to provide data validation only.

*POINTS:* 1

*QUESTION TYPE:* Multiple Choice

*HAS VARIABLES:* False

*LEARNING OBJECTIVES:* Eckert.Linux+6e.24.1.5 - Explain the common uses of Linux in industry today.

*ACCREDITING STANDARDS:* Eckert.XK0-005.24.2.1 - Summarize the purpose and use of security best practices in a Linux environment.

*TOPICS:* 1.5 Common Uses of Linux

*KEYWORDS:* Bloom's: Remember

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9. When viewing the version number for a modern Linux kernel, what number indicates that it is a development kernel?

- a. major number
- b. revision number
- c. minor number
- d. release candidate number

*ANSWER:* d

*RATIONALE:* A modern development kernel has a release candidate number appended to it. For example, 5.19-rc8 is release candidate 8 of the 5.19 kernel.

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*POINTS:* 1  
*QUESTION TYPE:* Multiple Choice  
*HAS VARIABLES:* False  
*LEARNING OBJECTIVES:* Eckert.Linux+6e.24.1.2 - Outline the key features of the Linux operating system.  
*TOPICS:* 1.2 The Linux Operating System  
*KEYWORDS:* Bloom's: Remember  
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10. Which of the following is the greatest expense for companies using Linux?

- a. additional software
- b. operating system cost
- c. hiring people to maintain the Linux system
- d. software upgrades

*ANSWER:* c  
*RATIONALE:* Outside of computer hardware costs, the hiring of staff to maintain the Linux system is the greatest expense for companies using Linux. This is because Linux and most Linux software are free and open source.

*POINTS:* 1  
*QUESTION TYPE:* Multiple Choice  
*HAS VARIABLES:* False  
*LEARNING OBJECTIVES:* Eckert.Linux+6e.24.1.2 - Outline the key features of the Linux operating system.  
*TOPICS:* 1.2 The Linux Operating System  
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11. In Linux, the core component of the GUI is known as:

- a. GNOME
- b. KDE
- c. X Windows
- d. Red Hat

*ANSWER:* c  
*RATIONALE:* X Windows is the core component that provides GUI functionality on Linux systems. Desktop environments, such as GNOME and KDE, run on top of X Windows to provide a specific look and feel.

*POINTS:* 1  
*QUESTION TYPE:* Multiple Choice  
*HAS VARIABLES:* False  
*LEARNING OBJECTIVES:* Eckert.Linux+6e.24.1.2 - Outline the key features of the Linux operating system.  
*TOPICS:* 1.4 Linux Distributions

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12. An archive of files that usually contains source code or scripts that can be used to install software is referred to as a:

- a. router
- b. package manager
- c. DBMS
- d. tarball

*ANSWER:* d

*RATIONALE:* Tarball is a compressed archive of files, very similar to WinZip or RAR files. It is used for distributions or backup purposes.

*POINTS:* 1

*QUESTION TYPE:* Multiple Choice

*HAS VARIABLES:* False

*LEARNING OBJECTIVES:* Eckert.Linux+6e.24.1.4 - Identify the characteristics of various Linux distributions and where to find them.

*TOPICS:* 1.4 Linux Distributions

*KEYWORDS:* Bloom's: Remember

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13. From what common Linux distribution is the Fedora Linux distribution derived?

- a. Mandrake
- b. SuSE
- c. Debian
- d. Red Hat

*ANSWER:* d

*RATIONALE:* Red Hat is one of the earliest and most common Linux distributions. Today, it is available as Red Hat Enterprise Linux (RHEL) and Fedora.

*POINTS:* 1

*QUESTION TYPE:* Multiple Choice

*HAS VARIABLES:* False

*LEARNING OBJECTIVES:* Eckert.Linux+6e.24.1.4 - Identify the characteristics of various Linux distributions and where to find them.

*TOPICS:* 1.4 Linux Distributions

*KEYWORDS:* Bloom's: Remember

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14. What service provides a method for the efficient transfer of files over the Internet?

- a. FTP
- b. HTML
- c. SMTP
- d. Telnet

**ANSWER:** a

**RATIONALE:** The File Transfer Protocol (FTP) is the service that transfers files over the Internet. A newer protocol that focuses on secure file transfer is called SFTP based on FTP.

**POINTS:** 1

**QUESTION TYPE:** Multiple Choice

**HAS VARIABLES:** False

**LEARNING OBJECTIVES:** Eckert.Linux+6e.24.1.5 - Explain the common uses of Linux in industry today.

**TOPICS:** 1.5 Common Uses of Linux

**KEYWORDS:** Bloom's: Remember

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15. The iptables and nftables software on Linux is an example of what kind of software?

- a. routing
- b. anti-virus
- c. firewall
- d. proxy

**ANSWER:** c

**RATIONALE:** Both iptables and nftables are used to configure a set of rules necessary to make a firewall.

**POINTS:** 1

**QUESTION TYPE:** Multiple Choice

**HAS VARIABLES:** False

**LEARNING OBJECTIVES:** Eckert.Linux+6e.24.1.5 - Explain the common uses of Linux in industry today.

**TOPICS:** 1.5 Common Uses of Linux

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16. What piece of software tells the operating system how to use a specific hardware device?

- a. graphical user interface
- b. system service
- c. device driver
- d. user interface

**ANSWER:** c

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**RATIONALE:** The device driver is responsible for communicating with the operating system on how to establish communication with specific devices.

**POINTS:** 1

**QUESTION TYPE:** Multiple Choice

**HAS VARIABLES:** False

**LEARNING OBJECTIVES:** Eckert.Linux+6e.24.1.1 - Explain the purpose of an operating system.

**TOPICS:** 1.1 Operating Systems

**KEYWORDS:** Bloom's: Remember

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17. What type of software license does Linux adhere to?

- a. permissive
- b. freeware
- c. closed source
- d. copyleft

**ANSWER:** d

**RATIONALE:** Linux is licensed under the GNU General Public License (GPL), which is a type of copyleft open source license.

**POINTS:** 1

**QUESTION TYPE:** Multiple Choice

**HAS VARIABLES:** False

**LEARNING OBJECTIVES:** Eckert.Linux+6e.24.1.2 - Outline the key features of the Linux operating system.

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18. What are services running on a Linux server called?

- a. daemons
- b. service apps
- c. containers
- d. threads

**ANSWER:** a

**RATIONALE:** On Linux systems, services are commonly referred to as daemons. Containers provide application and operating system virtualization, threads are execution units for a process, and the term service app is not used.

**POINTS:** 1

**QUESTION TYPE:** Multiple Choice

**HAS VARIABLES:** False

**LEARNING OBJECTIVES:** Eckert.Linux+6e.24.1.5 - Explain the common uses of Linux in industry today.

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19. What Linux distribution is commonly used by cybersecurity professionals because it is packaged with several security-related tools?

- a. Kali
- b. Arch
- c. Ubuntu
- d. Gentoo

**ANSWER:** a

**RATIONALE:** Kali Linux is a security-focused Linux distribution often used by cybersecurity professionals. While Ubuntu, Arch, and Gentoo Linux may also be used by cybersecurity professionals, the security-related tools that are normally packaged with Kali Linux will need to be installed manually after installation on these distributions.

**POINTS:** 1

**QUESTION TYPE:** Multiple Choice

**HAS VARIABLES:** False

**LEARNING OBJECTIVES:** Eckert.Linux+6e.24.1.4 - Identify the characteristics of various Linux distributions and where to find them.

**TOPICS:** 1.4 Linux Distributions  
**KEYWORDS:** Bloom's: Remember  
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20. What culture led to the development of free and open source software, from which Linux is derived?

- a. hacker
- b. UNIX
- c. free software
- d. cracker

**ANSWER:** a

**RATIONALE:** The hacker culture led to the development of free and open source software, from which Linux is derived.

**POINTS:** 1

**QUESTION TYPE:** Multiple Choice

**HAS VARIABLES:** False

**LEARNING OBJECTIVES:** Eckert.Linux+6e.24.1.3 - Describe the origins of the Linux operating system.

**TOPICS:** 1.3 The History of Linux  
**KEYWORDS:** Bloom's: Remember  
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