Student Name: Kenneth Kusiima

ID Number: UB76795SNE85988

Bachaolar in Networking and Information Security

Advisor Dr. Kanbiro Orkaido



Course name: Organization Computer System Administration

Course Objective:

The objective of this course is to provide students with the knowledge and skills required to effectively administer computer systems in an organizational context. Students will learn about various aspects of system administration, including system installation and configuration, user management, security measures, troubleshooting, and system monitoring. By the end of the course, students should be proficient in performing system administration tasks and be equipped to handle a wide range of system-related challenges.

Course Description:

This course introduces students to the fundamentals of system administration. It covers the principles and techniques necessary to successfully manage computer systems in an enterprise setting. Topics covered include system installation, configuring network services, user management, security policies and procedures, troubleshooting strategies, backup and recovery procedures, and performance monitoring. Students will have ample hands-on opportunities to practice administering different operating systems (e.g., Linux, Windows) and gain practical experience with key system administration tasks.

Multiple Choice Questions:

1. What is the main purpose of a computer system administrator?

a) To design and develop software applications.

b) To manage and maintain computer hardware.

c) To ensure network security.

d) To provide technical support to users.

Answer: b) To manage and maintain computer hardware.

2. Which of the following is a key responsibility of a system administrator?

a) Managing user accounts and access rights.

b) Creating marketing strategies for the organization.

c) Handling customer complaints and inquiries.

d) Conducting job interviews for new hires.

Answer: a) Managing user accounts and access rights.

3. What is the role of a system administrator in disaster recovery planning?

a) Developing marketing plans and strategies.

b) Designing and implementing backup systems.

c) Managing financial accounts and budgets.

d) Conducting employee performance evaluations.

Answer: b) Designing and implementing backup systems.

4. What is the primary goal of implementing security measures by a system administrator?

a) To increase the organization's profitability.

b) To ensure high availability and reliability of system resources.

c) To create a positive workplace culture.

d) To develop and implement marketing campaigns.

Answer: b) To ensure high availability and reliability of system resources.

5. Which of the following is a common task performed by a system administrator?

a) Developing marketing materials for the organization.

b) Providing training on new software applications.

c) Managing human resources and payroll.

d) Conducting market research and analysis.

Answer: b) Providing training on new software applications.

6. What does the acronym DNS stand for in the context of system administration?

a) Data Network System

b) Digital Network Security

c) Domain Name System

d) Distributed Network Server

Answer: c) Domain Name System

7. Which of the following is a key responsibility of a system administrator in managing network infrastructure?

a) Developing social media marketing strategies.

b) Managing customer relationship databases.

c) Configuring and maintaining network routers and switches.

d) Conducting performance evaluations for employees.

Answer: c) Configuring and maintaining network routers and switches.

8. What is the purpose of implementing system monitoring by a system administrator?

a) To track competitors' marketing strategies.

b) To manage financial accounts and budgets.

c) To detect and resolve system issues and bottlenecks.

d) To conduct employee training and development.

Answer: c) To detect and resolve system issues and bottlenecks.

9. Which of the following refers to a set of guidelines and policies to ensure appropriate use of technology resources in an organization?

a) Marketing plan

b) Human resources manual

c) IT security policy

d) Sales forecast

Answer: c) IT security policy

10. What is the purpose of conducting regular system backups by a system administrator?

a) To analyze market trends and forecasting.

b) To manage employee benefits and compensation.

c) To ensure the availability of data in case of data loss or system failure.

d) To develop and implement marketing strategies.

Answer: c) To ensure the availability of data in case of data loss or system failure.

Part II: Essay Questions with Answers

1. Discuss the steps involved in installing and configuring a new operating system on a server.

 Answer: The steps involved in installing and configuring a new operating system on a server typically include hardware compatibility check, partitioning and formatting the hard drive, selecting the installation source, choosing the desired packages and software components, configuring network settings, and setting up user accounts and passwords. Additional steps may include configuring services, security settings, and backups.

2. Explain the significance of access control and user management in system administration.

 Answer: Access control and user management play a crucial role in system administration as they ensure system security and protect against unauthorized access. System administrators are responsible for creating and managing user accounts, assigning appropriate permissions and access privileges, enforcing password policies, and monitoring user activity. Effective access control and user management help prevent data breaches and maintain the integrity of the system.

3. Describe the steps involved in troubleshooting a network connectivity issue.

 Answer: The steps involved in troubleshooting a network connectivity issue generally begin with checking physical connections (cables, network adapters). Next, administrators can use command-line tools like ping or ipconfig to diagnose problems at the network layer. Further steps may include checking firewall settings, examining DNS configurations, and analyzing network traffic using tools like Wireshark. Troubleshooting may also involve consulting network documentation, seeking vendor support, or performing hardware checks.

References:

1. Sybex. (2019). CompTIA A+ Complete Study Guide: Exam Core 1 220-1001 and Exam Core 2 220-1002 (4th ed.). Hoboken, NJ: Wiley.

2. Limoncelli, T. A., Hogan, C., & Chalup, S. (2017). The Practice of Cloud System Administration: DevOps and SRE Practices for Web Services, Volume 2. Boston, MA: Addison-Wesley Professional.

3. Burgess, M., Groth, D., & Bharadvaj, A. (2016). Handbook of Research on Human Factors in Contemporary Workforce Development. Hershey, PA: IGI Global.