Unit – 1

Installing Windows Server:

1. What is the first step in preparing for a Windows Server installation?

   - A) Inserting the installation media

   - B) Checking hardware compatibility

   - C) Partitioning the hard drive

   - D) Configuring BIOS settings

   - **Answer: B) Checking hardware compatibility**

2. Which utility can be used to create a bootable USB drive for installing Windows Server?

   - A) Disk Management

   - B) DiskPart

   - C) Rufus

   - D) Disk Cleanup

   - **Answer: C) Rufus**

3. What is the purpose of setting up the server hardware before installing Windows Server?

   - A) To ensure the server meets minimum requirements

   - B) To optimize performance

   - C) To provide proper airflow and cooling

   - D) All of the above

   - **Answer: D) All of the above**

4. Which of the following is NOT a step in installing the Windows Server operating system?

   - A) Selecting the installation language

   - B) Configuring network settings

   - C) Partitioning the hard drive

   - D) Installing device drivers

   - **Answer: B) Configuring network settings**

Configuring Network:

5. What is the first step in managing network cabling?

  - A) Testing cable connections

  - B) Labeling cables

  - C) Untangling cables

  - D) Routing cables

  - **Answer: B) Labeling cables**

6. Which tool is commonly used to configure network interface cards (NICs) in Windows Server?

  - A) Device Manager

  - B) Network and Sharing Center

  - C) Command Prompt

  - D) Control Panel

  - **Answer: A) Device Manager**

7. What is the purpose of implementing IP addressing in a network?

  - A) To uniquely identify devices on the network

  - B) To improve network performance

  - C) To encrypt network traffic

  - D) To prevent unauthorized access

  - **Answer: A) To uniquely identify devices on the network**

8. Which network infrastructure service assigns IP addresses to devices on a network automatically?

  - A) DNS

  - B) DHCP

  - C) SNMP

  - D) FTP

  - **Answer: B) DHCP**

9. Which of the following is NOT a network infrastructure service?

- A) DNS

- B) DHCP

- C) VLAN

- D) NAT

- **Answer: C) VLAN**

Creating a Virtual Environment:

10. What is the primary benefit of creating virtual servers?

  - A) Reduced hardware costs

  - B) Increased physical server utilization

  - C) Easier server management

  - D) All of the above

  - **Answer: D) All of the above**

11. Which virtualization technology is commonly used for creating virtual switches?

  - A) VMware vSphere

  - B) Hyper-V

  - C) VirtualBox

  - D) KVM

  - **Answer: B) Hyper-V**

12. What is the purpose of a virtual switch in a virtual environment?

  - A) To connect virtual machines to the physical network

  - B) To isolate virtual machines from each other

  - C) To provide network security

  - D) All of the above

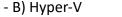 - **Answer: D) All of the above**

13. Which of the following is NOT a type of virtual switch?

  - A) External switch

- B) Internal switch

- C) Private switch

- D) Public switch

- **Answer: D) Public switch**

14. Which component is responsible for managing communication between virtual machines on the same host?

- A) Hypervisor

- B) Virtual NIC

- C) Virtual switch

- D) Virtual router

- **Answer: C) Virtual switch**

15. Which of the following virtualization technologies is open-source?

- A) VMware vSphere

- B) Hyper-V

- C) VirtualBox

- D) XenServer

- **Answer: C) VirtualBox**

16. What is the function of a virtual machine monitor (VMM)?

- A) To allocate physical resources to virtual machines

- B) To manage virtual machine configurations

- C) To provide hardware abstraction for virtualization

- D) All of the above

- **Answer: D) All of the above**

17. Which type of virtualization allows multiple operating systems to run simultaneously on a single physical machine?

- A) Application virtualization

- B) Desktop virtualization

- C) Server virtualization

- D) OS virtualization

- **Answer: D) OS virtualization**

18. Which virtualization technology is known for its ability to provide near-native performance for virtual machines?

- A) VMware vSphere

- B) Hyper-V

- C) XenServer

- D) KVM

- **Answer: D) KVM**

19. What is the main purpose of a virtual environment snapshot?

- A) To revert a virtual machine to a previous state

- B) To create a backup of a virtual machine

- C) To clone a virtual machine

- D) All of the above

- **Answer: D) All of the above**

20. Which of the following is NOT a consideration when creating virtual servers?

- A) Hardware compatibility

- B) Resource allocation

- C) Network topology

- D) Cooling requirements

- **Answer: D) Cooling requirements**

Unit – 2

Installing Windows Server:

1. Which tool is commonly used to configure local server properties in Windows Server?

  - A) Control Panel

  - B) Server Manager

  - C) Command Prompt

  - D) Group Policy Editor

  - **Answer: A) Control Panel**

2. What is the primary purpose of configuring server roles in Windows Server?

  - A) To optimize server performance

  - B) To enable specific server functionalities

  - C) To secure the server against threats

  - D) To manage server resources

  - **Answer: B) To enable specific server functionalities**

3. Which service role is responsible for assigning IP addresses dynamically to clients on a network?

  - A) DNS Server

  - B) DHCP Server

  - C) Active Directory Domain Services

  - D) File Server

  - **Answer: B) DHCP Server**

4. What is the importance of setting up IP addressing service roles in a network environment?

  - A) To provide secure access to network resources

  - B) To manage network traffic efficiently

  - C) To prevent unauthorized access to the network

  - D) All of the above

  - **Answer: B) To manage network traffic efficiently**

Administering the Server:

5. What is a common method to update a Windows Server?

   - A) Windows Update

   - B) Registry Editor

   - C) PowerShell script

   - D) Group Policy Management

   - **Answer: A) Windows Update**

6. Which tool is used to manage server administration access and control methods in Windows Server?

   - A) Active Directory Users and Computers

   - B) Local Security Policy

   - C) Remote Desktop Connection

   - D) Task Manager

   - **Answer: B) Local Security Policy**

7. What is the purpose of creating service level agreements (SLAs) for server administration?

   - A) To ensure compliance with industry standards

   - B) To define the level of service expected by users

   - C) To monitor server performance

   - D) To manage server resources effectively

   - **Answer: B) To define the level of service expected by users**

8. How can server performance be monitored in Windows Server?

   - A) Task Manager

   - B) Performance Monitor

   - C) Event Viewer

   - D) All of the above

   - **Answer: D) All of the above**

Implementing Storage Solutions:

9. What is the purpose of capacity planning in storage solutions?

   - A) To optimize storage performance

   - B) To determine storage requirements for future needs

   - C) To configure RAID arrays

   - D) To monitor disk usage

   - **Answer: B) To determine storage requirements for future needs**

10. Which primary storage devices are commonly deployed in enterprise environments?

   - A) Hard disk drives (HDDs)

   - B) Solid-state drives (SSDs)

   - C) Magnetic tape drives

   - D) All of the above

   - **Answer: D) All of the above**

11. Which storage technology combines multiple physical disks into a single logical unit to improve performance and/or redundancy?

   - A) RAID

   - B) NAS

   - C) SAN

   - D) SCSI

   - **Answer: A) RAID**

12. What does RAID stand for in storage technology?

   - A) Redundant Array of Independent Disks

   - B) Remote Access to Integrated Data

   - C) Reliable Array of Inexpensive Disks

   - D) Random Access In Distributed storage

   - **Answer: A) Redundant Array of Independent Disks**

13. Which RAID level offers the best performance and fault tolerance by striping data across multiple disks and mirroring them?

   - A) RAID 0

- B) RAID 1

- C) RAID 5

- D) RAID 10

- **Answer: D) RAID 10**

14. Which RAID level provides fault tolerance by distributing parity across multiple disks?

- A) RAID 0

- B) RAID 1

- C) RAID 5

- D) RAID 10

- **Answer: C) RAID 5**

15. Which storage technology is designed for sharing files over a network and is commonly used for backup purposes?

- A) NAS (Network Attached Storage)

- B) SAN (Storage Area Network)

- C) DAS (Direct-Attached Storage)

- D) RAID (Redundant Array of Independent Disks)

- **Answer: A) NAS (Network Attached Storage)**

16. What is the primary advantage of deploying solid-state drives (SSDs) over traditional hard disk drives (HDDs)?

- A) Lower cost per gigabyte

- B) Higher storage capacity

- C) Faster read/write speeds

- D) Longer lifespan

- **Answer: C) Faster read/write speeds**

17. What storage technology is typically used for high-speed data transfers between servers and storage devices?

- A) NAS

- B) SAN

- C) DAS

- D) RAID

- **Answer: B) SAN (Storage Area Network)**

18. Which RAID level provides no redundancy or fault tolerance but offers improved performance through data striping?

   - A) RAID 0

   - B) RAID 1

   - C) RAID 5

   - D) RAID 10

   - **Answer: A) RAID 0**

19. What is the primary purpose of deploying a storage technology like SAN?

   - A) To centralize storage resources

   - B) To improve network security

   - C) To increase server performance

   - D) To reduce storage costs

   - **Answer: A) To centralize storage resources**

20. Which RAID level offers fault tolerance by mirroring data across multiple disks without striping?

   - A) RAID 0

   - B) RAID 1

   - C) RAID 5

   - D) RAID 10

   - **Answer: B) RAID 1**

Unit – 3

Securing The Server:

1. Which component is primarily responsible for controlling incoming and outgoing traffic to and from a server?

   - A) Anti-virus software

   - B) Firewall

   - C) Intrusion Detection System (IDS)

   - D) VPN

   - **Answer: B) Firewall**

2. Which security protocol encrypts data transmitted over a network to prevent eavesdropping?

   - A) HTTP

   - B) FTP

   - C) SSL/TLS

   - D) SMTP

   - **Answer: C) SSL/TLS**

3. What is the purpose of an intrusion detection system (IDS)?

   - A) To prevent unauthorized access to the server

   - B) To encrypt network traffic

   - C) To detect and respond to suspicious activities or security breaches

   - D) To configure access control lists

   - **Answer: C) To detect and respond to suspicious activities or security breaches**

4. Which access control method is based on user identities and permissions?

   - A) Role-based access control (RBAC)

   - B) Mandatory Access Control (MAC)

   - C) Discretionary Access Control (DAC)

   - D) Rule-based access control (RBAC)

   - **Answer: C) Discretionary Access Control (DAC)**

5. Which data security model is based on assigning security labels to data objects and users?

   - A) Biba model

   - B) Bell-LaPadula model

   - C) Clark-Wilson model

   - D) Brewer-Nash model

   - **Answer: B) Bell-LaPadula model**

6. What are server hardening techniques primarily aimed at achieving?

   - A) Maximizing server performance

   - B) Reducing server maintenance costs

   - C) Minimizing security vulnerabilities

   - D) Improving network throughput

   - **Answer: C) Minimizing security vulnerabilities**

7. Which physical security measure can prevent unauthorized access to server hardware?

   - A) Firewall

   - B) Biometric authentication

   - C) Intrusion Detection System (IDS)

   - D) Encryption

   - **Answer: B) Biometric authentication**

8. What is the primary purpose of creating virtual networks?

   - A) To improve server performance

   - B) To isolate virtual machines from each other

   - C) To reduce network latency

   - D) To enhance data security

   - **Answer: B) To isolate virtual machines from each other**

9. Which firewall type operates by examining data packets and making decisions based on defined rules?

   - A) Packet-filtering firewall

- B) Application-layer firewall

- C) Proxy firewall

- D) Stateful inspection firewall

- **Answer: A) Packet-filtering firewall**

10. Which security protocol is commonly used for securing remote access to a server?

- A) SSH (Secure Shell)

- B) FTP (File Transfer Protocol)

- C) SNMP (Simple Network Management Protocol)

- D) RDP (Remote Desktop Protocol)

- **Answer: A) SSH (Secure Shell)**

11. What is the main function of a Virtual Private Network (VPN)?

- A) To encrypt data transmitted over a public network

- B) To provide physical security for server hardware

- C) To monitor network traffic

- D) To manage server resources

- **Answer: A) To encrypt data transmitted over a public network**

12. Which intrusion detection system approach involves analyzing network traffic for suspicious patterns or anomalies?

- A) Signature-based detection

- B) Behavior-based detection

- C) Host-based detection

- D) Network-based detection

- **Answer: B) Behavior-based detection**

13. Which logical access control method assigns permissions based on predefined roles within an organization?

- A) Role-based access control (RBAC)

- B) Mandatory Access Control (MAC)

- C) Discretionary Access Control (DAC)

- D) Rule-based access control (RBAC)

- **Answer: A) Role-based access control (RBAC)**

14. Which data security model focuses on maintaining the integrity of data by ensuring that only authorized users can modify it?

   - A) Bell-LaPadula model

   - B) Biba model

   - C) Brewer-Nash model

   - D) Clark-Wilson model

   - **Answer: B) Biba model**

15. Which server hardening technique involves removing unnecessary services and applications?

   - A) Patch management

   - B) Least privilege principle

   - C) Service isolation

   - D) Service and application lockdown

   - **Answer: D) Service and application lockdown**

16. What is the primary goal of implementing RAID (Redundant Array of Independent Disks) in storage solutions?

   - A) To improve data security

   - B) To maximize storage capacity

   - C) To enhance data availability and reliability

   - D) To reduce power consumption

   - **Answer: C) To enhance data availability and reliability**

17. Which RAID level provides both data striping and mirroring for fault tolerance and performance improvement?

   - A) RAID 0

   - B) RAID 1

   - C) RAID 5

   - D) RAID 10

- **Answer: D) RAID 10**

18. Which physical security measure involves restricting access to server rooms through the use of access cards or keypads?

   - A) Surveillance cameras

   - B) Mantraps

   - C) Biometric authentication

   - D) Access control systems

   - **Answer: D) Access control systems**

19. Which virtual network type enables communication between virtual machines running on the same physical server?

   - A) Internal virtual network

   - B) External virtual network

   - C) Private virtual network

   - D) Public virtual network

   - **Answer: A) Internal virtual network**

20. Which security protocol is commonly used for securing email communication?

   - A) HTTPS

   - B) SMTPS

   - C) FTPS

   - D) SSH

   - **Answer: B) SMTPS**

Unit – 4

Performing Basic Linux Tasks:

1. What is one of the key principles of Linux design philosophy?

   - A) Closed-source development

   - B) Monolithic kernel architecture

   - C) Open-source development and collaboration

   - D) Proprietary software licensing

   - **Answer: C) Open-source development and collaboration**

2. Which command is used to list the contents of a directory in Linux?

   - A) ls

   - B) cd

   - C) mv

   - D) rm

   - **Answer: A) ls**

3. How can you get help with a Linux command in the terminal?

   - A) Using the man command

   - B) Googling it

   - C) Asking a friend

   - D) All of the above

   - **Answer: D) All of the above**

4. Which key combination is commonly used to exit the man pages in Linux?

   - A) Ctrl + X

   - B) Ctrl + C

   - C) Ctrl + Q

   - D) Ctrl + Z

   - **Answer: C) Ctrl + Q**

Managing Users and Groups:

5. What command is used to create a new user in Linux?

   - A) adduser

   - B) useradd

   - C) createuser

   - D) newuser

   - **Answer: B) useradd**

6. How can you query information about users and groups in Linux?

   - A) Using the passwd command

   - B) Using the ls command

   - C) Using the id command

   - D) Using the who command

   - **Answer: C) Using the id command**

7. Which command is used to modify a user's password in Linux?

   - A) passwd

   - B) password

   - C) change

   - D) setpass

   - **Answer: A) passwd**

8. How do you assume superuser privileges for executing administrative tasks in Linux?

   - A) Using the sudo command

   - B) Logging in as root

   - C) Using the su command

   - D) All of the above

   - **Answer: A) Using the sudo command**

Managing Permissions and Ownership:

9. Which command is used to change file permissions in Linux?

   - A) chmod

   - B) chown

   - C) chgrp

   - D) perm

   - **Answer: A) chmod**

10. What does the command `chmod 755 file.txt` do in Linux?

   - A) Grants read, write, and execute permissions to the owner, and read and execute permissions to the group and others

   - B) Grants read, write, and execute permissions to the owner, group, and others

   - C) Grants read and write permissions to the owner, and read permissions to the group and others

   - D) Grants execute permissions to the owner, group, and others

   - **Answer: A) Grants read, write, and execute permissions to the owner, and read and execute permissions to the group and others**

11. How can you change the owner of a file in Linux?

   - A) Using the chown command

   - B) Using the chmod command

   - C) Using the chgrp command

   - D) Using the passwd command

   - **Answer: A) Using the chown command**

12. What is the purpose of the sticky bit permission in Linux?

   - A) To allow the owner to execute the file

   - B) To prevent accidental deletion of files in a directory

   - C) To restrict access to the file to the owner only

   - D) To allow group members to execute the file

   - **Answer: B) To prevent accidental deletion of files in a directory**

Managing Storage:

13. Which command is used to create partitions in Linux?

   - A) mkfs

   - B) fdisk

   - C) mount

   - D) resize2fs

   - **Answer: B) fdisk**

14. How can you mount a file system in Linux?

   - A) Using the mount command

   - B) Using the umount command

   - C) Using the fdisk command

   - D) Using the resize2fs command

   - **Answer: A) Using the mount command**

15. What does LVM stand for in Linux?

   - A) Logical Volume Manager

   - B) Large Volume Management

   - C) Logical Volume Mapping

   - D) Limited Volume Manager

   - **Answer: A) Logical Volume Manager**

16. Which command is used to create logical volumes in Linux?

   - A) lvcreate

   - B) lvextend

   - C) lvmcreate

   - D) vcreate

   - **Answer: A) lvcreate**

17. How can you navigate the Linux directory structure in the terminal?

   - A) Using the ls command

   - B) Using the cd command

- C) Using the cp command

- D) Using the rm command

- **Answer: B) Using the cd command**

18. Which command is used to display disk space usage in Linux?

   - A) df

   - B) du

   - C) fdisk

   - D) lsblk

   - **Answer: A) df**

19. What does the command `mkdir new_directory` do in Linux?

   - A) Creates a new file named "new_directory"

   - B) Moves the current directory to a new directory named "new_directory"

   - C) Removes the directory named "new_directory"

   - D) Creates a new directory named "new_directory"

   - **Answer: D) Creates a new directory named "new_directory"**

20. Which command is used to delete a file in Linux?

   - A) rm

   - B) del

   - C) erase

   - D) remove

   - **Answer: A) rm**

Unit – 5

Managing Files and Directories:

1. Which command is used to create a new directory in Linux?

   - A) touch

   - B) mkdir

   - C) cp

   - D) cat

   - **Answer: B) mkdir**

2. What command is used to edit a text file in Linux?

   - A) vim

   - B) ls

   - C) rm

   - D) mv

   - **Answer: A) vim**

3. Which command is used to search for files in Linux?

   - A) grep

   - B) find

   - C) locate

   - D) ls

   - **Answer: B) find**

4. What command is used to list the contents of a directory in Linux?

   - A) ls

   - B) cd

   - C) cat

   - D) pwd

   - **Answer: A) ls**

5. Which command is used to change the permissions of a file in Linux?

- A) chmod

- B) chown

- C) chgrp

- D) perm

- **Answer: A) chmod**

6. What command is used to change the ownership of a file in Linux?

  - A) chmod

  - B) chown

  - C) chgrp

  - D) own

  - **Answer: B) chown**

7. Which permission set (in octal notation) grants read, write, and execute permissions to the owner, read and execute permissions to the group, and read-only permission to others?

  - A) 755

  - B) 644

  - C) 777

  - D) 666

  - **Answer: A) 755**

8. Which command is used to process a text file and display its content on the terminal in Linux?

  - A) cat

  - B) grep

  - C) tail

  - D) head

  - **Answer: A) cat**

9. What command is used to append the output of a command to a file in Linux?

  - A) cat

  - B) grep

- C) echo

- D) tail

- **Answer: C) echo**

10. Which command is used to sort the lines of a text file alphabetically in Linux?

   - A) sort

   - B) uniq

   - C) wc

   - D) sed

   - **Answer: A) sort**

11. What command is used to display the first few lines of a text file in Linux?

   - A) head

   - B) tail

   - C) more

   - D) less

   - **Answer: A) head**

12. Which command is used to count the number of lines, words, and characters in a text file in Linux?

   - A) wc

   - B) count

   - C) grep

   - D) cut

   - **Answer: A) wc**

13. What command is used to replace text in a file in Linux?

   - A) sed

   - B) awk

   - C) grep

   - D) cut

   - **Answer: A) sed**

14. Which command is used to create a backup of a file in Linux?

   - A) cp

   - B) mv

   - C) backup

   - D) cp -r

   - **Answer: A) cp**

15. What command is used to remove a directory and its contents in Linux?

   - A) rm

   - B) rmdir

   - C) rm -r

   - D) rmdir -rf

   - **Answer: C) rm -r**

16. Which directory is the top-level directory in the Linux file system hierarchy?

   - A) /bin

   - B) /home

   - C) /usr

   - D) /

   - **Answer: D) /**

17. Which directory contains system configuration files in Linux?

   - A) /bin

   - B) /etc

   - C) /var

   - D) /usr

   - **Answer: B) /etc**

18. What command is used to create a symbolic link in Linux?

   - A) ln

- B) link

- C) symlink

- D) slink

- **Answer: A) ln**

19. Which command is used to display the current working directory in Linux?

   - A) dir

   - B) pwd

   - C) cd

   - D) ls

   - **Answer: B) pwd**

20. What command is used to display the contents of a file in a paginated form in Linux?

   - A) cat

   - B) more

   - C) less

   - D) head

   - **Answer: C) less**

Unit – 6

Managing Devices:

1. What type of Linux device is used to represent physical hardware components?

   - A) Block devices

   - B) Character devices

   - C) Network devices

   - D) Virtual devices

   - **Answer: A) Block devices**

2. Which command is commonly used to list all connected devices in Linux?

   - A) listdev

   - B) lshw

   - C) lsusb

   - D) lsblk

   - **Answer: D) lsblk**

3. What is the purpose of device configuration in Linux?

   - A) To optimize device performance

   - B) To ensure compatibility with the operating system

   - C) To manage device resources efficiently

   - D) All of the above

   - **Answer: D) All of the above**

4. Which tool is often used to monitor device status and performance in Linux?

   - A) top

   - B) ifconfig

   - C) dmesg

   - D) sar

   - **Answer: D) sar**

5. What is the primary function of troubleshooting hardware issues in Linux?

- A) To enhance device security

- B) To optimize device performance

- C) To ensure hardware reliability

- D) To minimize downtime

- **Answer: D) To minimize downtime**

Managing Networking:

6. What are the fundamental protocols of the TCP/IP suite?

  - A) HTTP and HTTPS

  - B) TCP and UDP

  - C) DNS and DHCP

  - D) IP and ICMP

  - **Answer: B) TCP and UDP**

7. Which Linux server role is responsible for providing file sharing services over the network?

  - A) DNS Server

  - B) DHCP Server

  - C) FTP Server

  - D) Web Server

  - **Answer: C) FTP Server**

8. What command is used to check the IP address configuration of a Linux system?

  - A) ipconfig

  - B) ifconfig

  - C) nslookup

  - D) dig

  - **Answer: B) ifconfig**

9. Which service is responsible for dynamically assigning IP addresses to clients on a network?

  - A) DNS

- B) DHCP

- C) HTTP

- D) SMTP

- **Answer: B) DHCP**

10. Which Linux command is used to troubleshoot DNS-related issues?

- A) nslookup

- B) traceroute

- C) netstat

- D) ping

- **Answer: A) nslookup**

11. What is the primary purpose of configuring cloud technologies in Linux?

- A) To improve server security

- B) To enhance network performance

- C) To increase scalability and flexibility

- D) To reduce hardware costs

- **Answer: C) To increase scalability and flexibility**

12. Which virtualization technology is commonly used in Linux environments?

- A) VMware vSphere

- B) Hyper-V

- C) KVM (Kernel-based Virtual Machine)

- D) VirtualBox

- **Answer: C) KVM (Kernel-based Virtual Machine)**

13. What command is used to troubleshoot network connectivity issues by sending ICMP echo requests?

- A) traceroute

- B) ping

- C) netstat

- D) dig

- **Answer: B) ping**

14. Which Linux utility is used to display network connection information, routing tables, and interface statistics?

   - A) netstat

   - B) ifconfig

   - C) ipconfig

   - D) traceroute

   - **Answer: A) netstat**

15. What is the purpose of configuring DNS client services in Linux?

   - A) To provide domain name resolution

   - B) To secure network communications

   - C) To manage IP address allocation

   - D) To optimize network performance

   - **Answer: A) To provide domain name resolution**

16. Which TCP/IP protocol is responsible for resolving domain names to IP addresses?

   - A) DNS (Domain Name System)

   - B) DHCP (Dynamic Host Configuration Protocol)

   - C) HTTP (Hypertext Transfer Protocol)

   - D) SMTP (Simple Mail Transfer Protocol)

   - **Answer: A) DNS (Domain Name System)**

17. What is the primary role of a DHCP server in a network?

   - A) To assign IP addresses to devices dynamically

   - B) To resolve domain names to IP addresses

   - C) To provide secure communication channels

   - D) To manage file sharing services

   - **Answer: A) To assign IP addresses to devices dynamically**

18. Which Linux command is used to display the route that network packets take to reach a destination?

   - A) traceroute

   - B) ping

   - C) netstat

   - D) route

   - **Answer: A) traceroute**

19. What is the purpose of configuring a Linux server as a DNS server?

   - A) To assign IP addresses to devices dynamically

   - B) To resolve domain names to IP addresses

   - C) To manage file sharing services

   - D) To optimize network performance

   - **Answer: B) To resolve domain names to IP addresses**

20. Which Linux command is used to query DNS records for a domain name?

   - A) dig

   - B) nslookup

   - C) ping

   - D) host

   - **Answer: A) dig**