



DIPLOMA IN COMPUTER NETWORKS AND SYSTEMS ADMINISTRATION (DCNSA)

LEVEL II

WINDOWS SERVER ROLES AND FEATURES

TUESDAY: 2 December 2025. Morning Paper.

Time Allowed: 2 hours.

This paper consists of fifty (50) Multiple Choice questions. Answer ALL questions by indicating the letter (A, B, C or D) that represents the correct answer. Each question is allocated two (2) marks.

1. Which statement **BEST** describes how the architecture of a Linux server differs from that of a Windows server?
 - A. Linux servers rely on graphical interfaces, while Windows servers use command-line operations for system management tasks
 - B. Linux servers are built around the Linux kernel, while Windows servers use the Windows NT architecture for operations
 - C. Linux servers focus on proprietary software, while Windows servers use open-source code for flexible system configurations
 - D. Linux servers automate hardware upgrades, while Windows servers prioritise user-friendly interfaces for system administration tasks(2 marks)
2. A small IT firm has just set up a Windows Server to manage file sharing and network resources. How can the firm modify the services provided by the server after its initial setup?
 - A. You can add or remove services, such as roles and features to adjust the server's functionality dynamically
 - B. You can only reinstall the server to change services, as roles and features are fixed after installation
 - C. You must disable all network connections to modify services, ensuring secure reconfiguration of the server
 - D. You can only remove services, as adding new ones requires a fresh installation of the server software(2 marks)
3. A university IT department is configuring a Windows Server to manage its campus network. What can they configure in the advanced settings of Internet Protocol Version 4 (TCP/IPv4) on the server?
 - A. Set up firewall rules, block ports and manage traffic for specific network services and roles
 - B. Adjust RAM allocation, virtual disk size and storage settings for the server's virtual machine
 - C. Configure IP address, mask, alias, gateways, DNS settings and WINS for name resolution management
 - D. Enable gaming protocols, multimedia streaming, and client access for non-Microsoft network services(2 marks)
4. A cloud company installs a new Windows Server to host applications. Only the core OS and essential components are included. Which one of the following is installed by default?
 - A. Hyper-V
 - B. Web server
 - C. Remote desktop services
 - D. Server manager(2 marks)
5. A mid-sized company is configuring a Windows Server to support multiple business functions. What is the primary difference between roles, features and services on the server?
 - A. Roles manage hardware resources, features control network settings, and services handle user authentication processes
 - B. Features are graphical interfaces, roles are network protocols, and services manage server storage allocation
 - C. Services are equivalent to Linux daemons, supporting roles, while features enhance roles for specific functionalities
 - D. Roles are optional add-ons, features are mandatory components, and services are for cloud integration only(2 marks)

6. An IT team sets up software and services to handle file storage, web hosting and databases. This collection, configured for a specific network purpose, is called _____.
- A. server roles
 - B. server features
 - C. virtual machine
 - D. hypervisor
- (2 marks)
7. A healthcare organisation is deploying a Windows Server to manage patient records and internal communications. What is the purpose of a server role within the server environment and the broader network infrastructure?
- A. It represents the basic communication protocols and management utilities that are added to any server for standard administrative tasks
 - B. It is simply an advanced management tool designed to monitor and automatically control all the various inbound and outbound network traffic flows
 - C. The primary role is an add-on program that is not directly related to a server's main function but instead provides additional functionality to the entire system
 - D. It is a set of features and specific services required to perform a singular, dedicated function on the server and within the overall network environment
- (2 marks)
8. An SME's IT department is setting up a new Windows Server for its office network. What can they do in the Quick Start section of the Server Manager dashboard?
- A. Configure firewall settings, allocate virtual disk space, and update the server's operating system automatically
 - B. Add roles and features, manage other servers, create server groups, and manage cloud services directly
 - C. Rename the server, disable IPv6, and configure DNS settings for network name resolution tasks
 - D. Install remote desktop services, monitor hardware performance, and enable Telnet Client for remote access
- (2 marks)
9. Triple A Bank is configuring its Windows Server to handle various network operations. Which one of the following statements **BEST** describes a server role in terms of its functionality within the network?
- A. A role is a software service enabling the server to perform a specific function, defining its network purpose
 - B. A role is a hardware component that enhances the server's processing power for specific network tasks
 - C. A role is a security protocol that restricts access to the server, ensuring only authorised services run
 - D. A role is a graphical interface tool that simplifies server management without altering its network functionality
- (2 marks)
10. A government agency is setting up a Windows Server. The key difference between a Server Role and a Server Feature is _____.
- A. a role is installed through the control panel's add/remove programs utility, whereas a feature can only be added or removed using the server manager console
 - B. a role includes components like management tools and communication protocols, while a Feature includes core network services such as DNS and DHCP
 - C. a role directly related to a server's function and has specific role services, while a feature is an add-on that often adds general functionality to the whole server
 - D. a role always has multiple corresponding role services, while a feature is described as being a singular program that is never grouped with any others
- (2 marks)
11. A technology firm is enhancing its Windows Server to better support business operations. What is the primary function of a Windows Server feature?
- A. A feature automates server updates, ensuring compatibility with all installed roles without manual intervention
 - B. A feature restricts server access, ensuring only authorized users can interact with installed roles or services
 - C. A feature replaces roles, providing primary services to end users or other computers in the network
 - D. A feature enhances or supports the functionality of the server or its installed roles, adding optional capabilities
- (2 marks)
12. A TVET Institution IT department is setting up its network to ensure that all student and staff devices receive proper IP configuration automatically. Which one of the following server roles automatically assigns IP configuration to client devices?
- A. DNS server
 - B. DHCP server
 - C. Proxy server
 - D. TCP/IP server
- (2 marks)

13. A corporate IT team is planning to add new disks to a Windows file server. Why is it necessary to document the reason for shutting down the server before performing this task?
- A. Documenting marks the shutdown as planned maintenance, recording downtime as authorised
 - B. Documenting resets network settings, allowing new disks to integrate properly with the server's configuration
 - C. Documenting triggers automatic role checks, ensuring the file server role functions correctly after the shutdown
 - D. Documenting restricts disk access to administrators, securing the server during the disk addition process
- (2 marks)
14. A large enterprise is using Active Directory (AD) to centralise management of its network resources. Which one of the following is NOT a primary resource stored in the AD database?
- A. Information concerning network users
 - B. Data related to network computers, including their names and locations
 - C. Configuration settings for applications that are running on the server
 - D. Detailed records for all networked printers
- (2 marks)
15. A global online food store is configuring its Windows Server to protect sensitive client data. What is the primary function of the Windows Defender Firewall on the server for network security?
- A. The firewall blocks or allows traffic to and from the server, enhancing security by controlling access
 - B. The firewall automatically updates the server's operating system to patch network security vulnerabilities
 - C. The firewall manages DNS and WINS settings to ensure accurate name resolution for network clients
 - D. The firewall allocates IP addresses to client devices, replacing the need for DHCP services
- (2 marks)
16. A startup has just installed a fresh Windows Server to host its applications and network services. Why are most services **NOT** enabled by default after installation?
- A. Default services are disabled to ensure compatibility with all network types, requiring manual activation for security
 - B. Services are not enabled to allow selective activation based on the server's intended role in the network
 - C. Default services are restricted to prevent unauthorised access, enabling only essential administrative functions initially
 - D. Services are disabled to reduce hardware requirements, ensuring the server runs efficiently without additional configuration
- (2 marks)
17. A logistics company is configuring a Windows Server to handle file sharing, print services and web hosting. Why might the server be configured to perform multiple roles simultaneously within the network?
- A. Multiple roles restrict access to specific users, enhancing security for various network services and data
 - B. Multiple roles reduce hardware requirements, optimising performance for a single primary service function
 - C. Multiple roles automate server updates, ensuring compatibility across all network devices and services
 - D. Multiple roles allow the server to serve diverse functions, meeting varied network needs efficiently
- (2 marks)
18. A corporate IT team is shutting down a Windows file server to add new disks. What option should they select to indicate that this shutdown is a planned reconfiguration?
- A. Select "Hardware Failure" to indicate that the shutdown is due to physical disk replacement issues
 - B. Choose "Network Issue" to signify that the shutdown addresses connectivity problems with new disks
 - C. Select "Operating System: Reconfiguration (Planned)" to mark the shutdown as scheduled maintenance for disk addition
 - D. Pick "Unplanned Event" to note that the shutdown is unexpected but necessary for disk configuration
- (2 marks)
19. A multinational company is implementing secure communications and authentication across its network. How does Active Directory Certificate Services (AD CS) support identity and access control?
- A. It enforces firewall rules and network segmentation to prevent unauthorised access between offices
 - B. It monitors user activity and logs all access attempts to detect suspicious behaviour in real time
 - C. It automatically encrypts all emails and files across the organisation without user intervention
 - D. It issues digital certificates to verify users, devices and services for secure authentication across domains
- (2 marks)

20. Academic group of schools under one umbrella body are deploying Windows Server to handle multiple business functions. Why is Server Manager particularly useful for managing roles and features on the server?
- A. It restricts access to roles, ensuring only authorised administrators can install or modify them
 - B. It provides a graphical dashboard for quick access to role, feature and service management on startup
 - C. It replaces the need for services, allowing roles to function without underlying daemon processes
 - D. It automatically configures network settings, eliminating the need for manual IP or DNS adjustments
- (2 marks)
21. An orthopedic hospital wants employees to securely access web applications outside their primary domain. Which Active Directory role provides secure communication and Web Single-Sign-On (SSO) capabilities?
- A. Active Directory Federation Services (AD FS)
 - B. Active Directory Rights Management Service (AD RMS)
 - C. Active Directory Domain Services (AD DS)
 - D. Active Directory Certificate Services (AD CS)
- (2 marks)
22. Jasmeet is a system administrator for an international company and needs to efficiently install various Windows operating systems onto multiple client machines across the network without physically visiting each one. Advise him on which specific server role should be utilised for this purpose?
- A. Network Access Protection (NAP)
 - B. Windows SharePoint Services
 - C. Terminal Services
 - D. Windows Deployment Services (WDS)
- (2 marks)
23. A Subcounty IT department is designing its network infrastructure. How does the structure of a Client-Server network differ from that of a Peer-to-Peer network in terms of functionality?
- A. Client-Server networks treat all nodes equally, while Peer-to-Peer networks differentiate clients and servers for functionality
 - B. Client-Server networks restrict node access, while Peer-to-Peer networks automate data sharing without node differentiation
 - C. Client-Server networks differentiate clients and servers, while Peer-to-Peer networks treat all nodes as both clients and servers
 - D. Client-Server networks focus on hardware-based roles, while Peer-to-Peer networks prioritise software for node functionality
- (2 marks)
24. A software company is setting up a Windows-based network for file sharing. Which protocol is natively integrated into Windows, making it more suitable than NFS for this environment?
- A. NTFS
 - B. SMB
 - C. FTP
 - D. HTTP
- (2 marks)
25. A retail hardware has a windows server that does not host websites. Why is it unnecessary to leave port 80 open on this server?
- A. Port 80 is used for DNS resolution, which is irrelevant for servers without Active Directory roles
 - B. Port 80 consumes excessive RAM, reducing performance for servers without web-related functions
 - C. Port 80 is for web services, so leaving it open on non-web servers risks unnecessary vulnerabilities
 - D. Port 80 is reserved for virtualisation, making it incompatible with non-virtualised server configurations
- (2 marks)
26. A furniture manufacturing store is yet to decide whether to deploy windows server or standard windows operating system for its office computers. What is the primary purpose of Windows Server compared to the standard Windows operating system?
- A. Windows Server is designed to provide services to other devices, unlike the standard Windows OS for personal use
 - B. Windows Server focuses on gaming and multimedia, while the standard Windows OS is for office productivity tasks
 - C. Windows Server is only for home use, while the standard Windows OS is built for enterprise environments
 - D. Windows Server supports older hardware, whereas the standard Windows OS requires modern, high-performance systems
- (2 marks)

27. An IT Consulting firm is configuring network connectivity for a new Windows Server. What action should they take in the Network Connections window to configure an Ethernet adapter's IPv4 settings?
- A. Double-click the Ethernet adapter to open its configuration settings and select TCP/IPv4 for modification
 - B. Select the Ethernet adapter and click "Configure" to directly access the IPv4 settings configuration window
 - C. Right-click the Ethernet adapter and select "Properties" from the context menu to configure IPv4 settings
 - D. Click "Enable this network device" to activate the adapter before configuring its IPv4 settings manually
- (2 marks)
28. A system administrator is deploying a Windows Server to provide file storage, print services and web hosting. A feature that demonstrates the server's role functionality within the network is _____.
- A. restricting access to network resources for certain users or groups
 - B. performing specific functions such as file sharing
 - C. scheduling and managing system updates across the server environment
 - D. monitoring and optimising hardware performance for hosted services
- (2 marks)
29. John is deploying Windows Server 2022 in an institution to enhance collaboration among employees. What is the core functionality provided by SharePoint Server Subscription Edition?
- A. Tools for collaboration that allow users to share and manage essential documents
 - B. Services that enable users to remotely connect and run applications securely
 - C. Mechanisms for deploying and remotely installing various Windows operating systems
 - D. Provision of security-based compliance checks across network resources
- (2 marks)
30. A technology historian is examining the evolution of enterprise operating systems. How did Microsoft's release of Windows NT contribute to the development of the Windows Server operating system family?
- A. Windows NT was a gaming platform that evolved into Windows Server for managing high-performance gaming servers
 - B. Windows NT was a home-use OS that later became Windows Server for small business network management
 - C. Windows NT was a mobile OS that Microsoft adapted into Windows Server for enterprise mobile device management
 - D. Windows NT was the precursor to Windows Server, designed for business environments to manage network services effectively
- (2 marks)
31. Kendy, an intern from the IT department, wants to maintain optimal performance across its servers and network. How does network traffic monitoring contribute to ensuring smooth server operations within the IT infrastructure?
- A. Network traffic monitoring observes data flow, ensuring sufficient bandwidth capacity and preventing saturation-related performance issues
 - B. Network traffic monitoring automates software updates, reducing the need for manual tracking of data flow performance
 - C. Network traffic monitoring restricts server access, ensuring security and compliance without tracking data flow metrics
 - D. Network traffic monitoring focuses on upgrading hardware, minimizing the need for continuous monitoring of data flow
- (2 marks)
32. A Media agency is deploying a new windows server to handle confidential data and internal communications. Why is it critical to configure the server's network settings correctly to avoid compromising its security?
- A. Incorrect settings prevent the server from accessing the internet, limiting its ability to provide services
 - B. Incorrect configuration creates vulnerabilities, allowing unwanted access to the server and its stored or managed data
 - C. Improper configuration disables the server's graphical interface, making administration impossible without command-line tools
 - D. Misconfigured settings cause the server to use excessive RAM, reducing performance for network operations
- (2 marks)
33. A startup company is evaluating whether to deploy a Linux server or a Windows server for its business operations. Which one of the following is a key financial consideration when choosing between the two?
- A. Linux servers require expensive hardware upgrades, while Windows servers are free to use without licensing costs
 - B. Linux servers charge for community support, while Windows servers offer free long-term customer support for users
 - C. Linux servers are free and open-source, while Windows servers require a licensing fee per user for operation
 - D. Linux servers automate software updates, while Windows servers require costly manual configurations for system operations
- (2 marks)

34. An organisation wants to consolidate multiple physical servers into virtual environments to save on hardware and maintenance costs. In which way does installing the Hyper-V role affect a Windows Server's functionality within the network?
- A. It enables the server to host virtual machines, supporting virtualisation for multiple services or applications
 - B. It restricts server access to virtualized environments, ensuring secure management of network resources exclusively
 - C. It enhances file-sharing capabilities, allowing the server to manage centralised storage across networks
 - D. It automates network address configuration, ensuring devices receive IP addresses for connectivity efficiently (2 marks)
35. A network administrator is reviewing default network settings on a newly installed Windows Server. Which one of the following statements BEST describes the default usage of NetBIOS on the server's network interface?
- A. NetBIOS is disabled by default since Windows Server fully depends on DNS for network name resolution
 - B. NetBIOS is enabled by default to maintain backward compatibility and support local name resolution
 - C. NetBIOS is enabled by default only when IPv6 is used to manage older communication protocols
 - D. NetBIOS is enabled by default because it is required for Active Directory authentication services (2 marks)
36. A network technician is setting up a new Windows Server and needs to assign a static IP address and DNS server. What is the first step to configure TCP/IPv4 settings on the server?
- A. Open the Command Prompt, type "ipconfig /all" and modify the IPv4 settings directly from the terminal output
 - B. Right-click the "Network" icon on the desktop and select "Properties" from the context menu to begin
 - C. Type "ncpa.cpl" in the search box to directly access the Network Connections window for configuration
 - D. Open Server Manager, navigate to Network Settings, and select the adapter to configure IPv4 settings (2 marks)
37. An IT managed services company is deploying a windows server to host dynamic web applications. Why should a web server role require the .NET feature installed?
- A. The .NET feature enables remote desktop access, allowing administrators to manage the Web Server remotely
 - B. The .NET feature manages storage allocation, ensuring the Web Server has sufficient disk space for files
 - C. The .NET feature supports dynamic language development, enabling the Web Server to host advanced web applications
 - D. The .NET feature enhances firewall security, protecting the Web Server from unauthorised network access attempts (2 marks)
38. A company wants to improve how employees store, share and back up documents across its network. What is the primary benefit of using the file server role on a windows Server for network file management?
- A. It centralises file storage, simplifies saving and restoring and enables collaboration
 - B. It restricts file access to local users only, ensuring data remains isolated from external network devices
 - C. It automates server backups, reducing the need for manual data management and recovery processes significantly
 - D. It optimises server performance by reducing CPU and RAM usage for file-related operations across networks (2 marks)
39. An organisation is setting up a Windows Server to support multiple departments within its network. What is the primary purpose of a Windows Server in providing services to users and other computers within an organisation?
- A. It restricts network access to authorised devices, ensuring secure data management without enabling services by default
 - B. It serves specific services to end users or other computers, enabled selectively after a fresh installation
 - C. It automates system updates to maintain compatibility with all possible services without requiring configuration
 - D. It optimises hardware performance by limiting services to those pre-installed during the server setup process (2 marks)
40. An organisation is configuring several laptops for employees who need network access in different office areas. What is the primary purpose of a wireless network card in enabling connectivity within the organisation's network?
- A. It manages wired network connections to ensure faster data transfer across Ethernet ports
 - B. It encrypts all network traffic automatically to secure data transmissions between servers
 - C. It functions as a network firewall, preventing unauthorised access to wireless connections
 - D. It provides wireless communication capability, allowing devices to connect to Wi-Fi networks without cables (2 marks)

41. A data center is evaluating Operating Systems for hosting critical business applications that require maximum uptime. Why are Linux servers often considered more reliable than Windows servers for such hosting tasks?
- A. Linux servers rely on frequent hardware upgrades, ensuring reliability for hosting critical applications without security concerns
 - B. Linux servers restrict access for reliability, prioritizing security over performance for critical application hosting tasks
 - C. Linux servers rarely experience malware or cyber threats, ensuring reliable performance for critical application hosting tasks
 - D. Linux servers automate software updates, ensuring reliability without addressing malware or cyber threat vulnerabilities (2 marks)
42. A Network Engineer is configuring a Windows Server to manage communication between devices. Why are roles like the DNS Server critical for the server's operation within the network?
- A. They enable the server to perform specific functions, such as name resolution, critical for network communication
 - B. They restrict server access to authorised devices, ensuring secure data management across the network infrastructure
 - C. They optimise server hardware, reducing resource usage for network-related tasks and improving performance
 - D. They automate server updates, ensuring compatibility with all network devices without manual configuration (2 marks)
43. A public university technical team is setting up computers running Windows and MacOS to connect to the campus network. What is the primary purpose of configuring a Network Interface Card (NIC) on these operating systems?
- A. Configuring a NIC restricts network parameters, ensuring secure communication without setting IP addresses on Windows or macOS systems
 - B. Configuring a NIC sets network parameters like IP addresses and subnet masks, enabling communication on Windows or macOS systems
 - C. Configuring a NIC automates network parameter settings, reducing manual configuration needs for communication on Windows or macOS
 - D. Configuring a NIC focuses on hardware parameter settings, minimizing software requirements for communication on Windows or macOS systems (2 marks)
44. You are manually configuring IP and DNS settings on a Windows Server. After entering the TCP/IPv4 properties, what action should you take to apply the changes?
- A. Restart the server to apply the TCP/IPv4 settings and ensure network connectivity is established correctly
 - B. Run "ipconfig /release" in the Command Prompt to apply the new TCP/IPv4 settings immediately
 - C. Click "OK" in the TCP/IPv4 Properties dialog and previous dialog boxes to apply the changes made
 - D. Save the settings in Server Manager to apply the TCP/IPv4 configuration across all network adapters (2 marks)
45. An IT practitioner has just configured manual TCP/IP configuration on a Windows Server 2022 machine. How can the specialist open the Command Prompt to verify the applied TCP/IPv4 settings?
- A. Right-click the "Network" icon on the desktop and select "Open Command Prompt" from the context menu
 - B. Open Server Manager, navigate to Tools and select "Command Prompt" to verify network settings
 - C. Press Ctrl+Alt+Delete and select "Command Prompt" to access the terminal for configuration verification
 - D. Type "cmd.exe" in the search box and click "Command Prompt" from the search results to open it (2 marks)
46. A group of IT students are configuring network settings on a Windows Server 2022 machine. When assigning a static IP address, which one of the following is a function of the Subnet Mask in the TCP/IPv4 configuration?
- A. To define the default gateway that routes traffic to external networks
 - B. To determine which portion of the IP address identifies the network and which part identifies the host
 - C. To assign a unique physical address to each network interface card
 - D. To specify the DNS server used for name resolution (2 marks)

47. An enterprise relies heavily on its servers to support business operations and customer services. Why is server monitoring essential for maintaining IT infrastructure and preventing costly disruptions in an enterprise?
- A. It tracks server performance metrics, preventing downtime that can cost the enterprise per hour, ensuring reliability and user satisfaction
 - B. It focuses on upgrading hardware components, reducing the need for real-time monitoring and minimising costs for IT teams
 - C. It primarily enhances software development, ensuring applications run smoothly without needing to monitor server health or performance
 - D. It restricts access to server data, prioritising security over performance to prevent unauthorised access and ensure compliance (2 marks)
48. A system administrator wants to ensure consistent performance and stability of a Windows Server. How does monitoring I/O operations contribute to maintaining the health of the server's Operating System?
- A. I/O monitoring automates software updates, reducing the need for manual checks of input/output performance metrics
 - B. I/O monitoring restricts server access, ensuring security without tracking input/output operations or performance issues
 - C. I/O monitoring tracks input/output operations, ensuring efficient data handling and preventing performance degradation in server operations
 - D. I/O monitoring focuses on upgrading hardware, minimising the need for continuous monitoring of input/output performance (2 marks)
49. A company is selecting a server platform to host its web services and databases. The choice of Operating System critical in this decision because _____.
- A. it automates hardware upgrades, reducing the need for manual configuration of web services or databases
 - B. it restricts user access, prioritising security over performance for hosting web services or databases
 - C. it focuses on software updates, minimising the need for configuring servers for specific applications
 - D. it determines cost, security and impacts how well the server meets specific application requirements (2 marks)
50. A government parastatal is deciding whether to deploy Linux or Windows servers for its newly hired system administrators. Why is user experience an important factor in choosing between the two?
- A. Linux offers a beginner-friendly interface, while Windows requires experienced administrators for complex command-line system operations
 - B. Linux requires experienced administrators for command-line operations, while Windows is more beginner-friendly with its graphical interface
 - C. Linux restricts user access for simplicity, while Windows automates tasks to reduce the need for administrative experience
 - D. Linux focuses on hardware upgrades, while Windows prioritises software updates for easier administrative user experiences (2 marks)
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DIPLOMA IN COMPUTER NETWORKS AND SYSTEMS ADMINISTRATION (DCNSA)

LEVEL II

WINDOWS SERVER ROLES AND FEATURES

TUESDAY: 19 August 2025. Morning Paper.

Time Allowed: 2 hours.

This paper consists of fifty (50) Multiple Choice questions. Answer ALL questions by indicating the letter (A, B, C or D) that represents the correct answer. Each question is allocated two (2) marks.

1. Users are unable to access a centralised document repository hosted on a Windows server configured as a file server. Despite being connected to the domain, they encounter a “network path not found” error. Which one of the following server role configurations should the administrator check first?
 - A. DNS Server configuration
 - B. File and Storage Services role
 - C. DHCP Server settings
 - D. Active Directory Domain Services (AD DS)(2 marks)
2. A network administrator must choose a network server feature that enables external connectivity and gives internal devices NAT capabilities when establishing a secure corporate network. Which one of the following devices can be used?
 - A. Switch
 - B. Access Point
 - C. Firewall
 - D. Router(2 marks)
3. A system administrator is configuring multiple department websites on a single Windows Server machine. Which one of the following features allows the server to host multiple websites using the same IP address?
 - A. NAT (Network Address Translation)
 - B. DNS Forwarding
 - C. Host Headers
 - D. Port Forwarding(2 marks)
4. Kendy is configuring various server roles to support client access to shared digital resources in a small business network. Which one of the following is a software or hardware device that uses application layer protocols such as HTTP or HTTPS to store, process and deliver content to users over a network?
 - A. Web Server
 - B. File Server
 - C. DHCP Server
 - D. DNS Server(2 marks)

5. The IT team of a financial institution is deploying a mission-critical server infrastructure. Their priorities include fault tolerance, high availability and automated failover to ensure business continuity in the event of system failures. Which one of the following server configurations **MOST** effectively meets these requirements?
- A. Active-Passive failover cluster with shared storage and heartbeat monitoring
 - B. Load-balanced servers with no shared storage
 - C. Single-server setup with redundant power supplies
 - D. Virtual machines running on a standalone hypervisor with manual snapshot backups
- (2 marks)
6. An IT team is developing an e-commerce platform that requires high availability and fault tolerance. To achieve this, they are incorporating redundancy and advanced load balancing mechanisms. The web server deployment strategy that **BEST** supports these objectives is known as _____.
- A. single server hosting
 - B. round-robin DNS
 - C. load-balanced cluster
 - D. content delivery network (CDN)
- (2 marks)
7. A university IT department is deploying a centralised platform for managing student portal access, file sharing and real-time campus announcements. Which one of the following server types securely hosts and handles dynamic content generated in response to user requests?
- A. Application Server
 - B. File Server
 - C. Mail Server
 - D. Web Server
- (2 marks)
8. A system administrator must configure a web server to encrypt user sessions and prevent eavesdropping over public networks. Which one of the following configurations fulfills this requirement?
- A. Enable HTTP port 80 with session logging
 - B. Assign static IP addresses to client browsers
 - C. Install a firewall to filter ICMP traffic
 - D. Implement TLS/SSL and redirect traffic to HTTPS
- (2 marks)
9. The university data center is divided into multiple VLANs to separate student, faculty and guest traffic. A centralised DHCP server located in a separate management VLAN handles IP address assignment. Which one of the following network services must be configured to enable devices in all VLANs to receive IP addresses?
- A. Port Security
 - B. DHCP Relay Agent
 - C. DHCP Snooping
 - D. Port forwarding
- (2 marks)
10. In high-availability networks, how do DNS servers support fault tolerance and load balancing especially during failovers and heavy user demand?
- A. By encrypting DNS query traffic to enhance the confidentiality of communications
 - B. By caching MAC address mappings to avoid excessive ARP broadcasts in the network
 - C. By using round-robin DNS and failover setups to balance traffic and redirect users
 - D. By assigning static IP addresses to clients to reduce the load on DNS resolution
- (2 marks)

11. When setting up a corporate intranet, a network administrator assigns a server to automatically handle client requests for IP address allocation. In the DORA process, the step where the client sends a broadcast message to 255.255.255.255 to find available DHCP servers is known as _____.
- A. offer
 - B. acknowledge
 - C. request
 - D. discover
- (2 marks)
12. Efficient and secure user authentication is important in large enterprise networks. The way Active Directory Domain Services (AD DS) is set up could greatly affect how users log in. Which one of the following AD DS set-ups is **BEST** for improving both speed and security of user logins in large organisations?
- A. Put one main server in each office and update it manually
 - B. Use one AD structure with read-only servers in branches and cache group information
 - C. Create separate AD structures for each department and link them with trusts
 - D. Turn off Kerberos and only use NTLM for all user logins
- (2 marks)
13. Stateless Address Autoconfiguration (SLAAC) in modern IPv6 networks simplifies network administration and supports scalability but also introduces potential vulnerabilities for adversaries. Which one of the following security implications utilises Stateless Address Autoconfiguration (SLAAC)?
- A. Domain Name System Cache Poisoning
 - B. Media Access Control Spoofing
 - C. Rogue Router Advertisement Attack
 - D. Address Resolution Protocol Spoofing
- (2 marks)
14. Juma is upgrading a learning institution's IT infrastructure by ensuring the compatibility of internal wireless network cards with different wireless standards. Which one of the following IEEE standards would a dual-band wireless network card support to ensure high-speed connectivity on both 2.4 GHz and 5 GHz bands?
- A. IEEE 802.11ac
 - B. IEEE 802.3
 - C. IEEE 802.5
 - D. IEEE 802.1Q
- (2 marks)
15. Effective subnetting requires a careful balance between conserving IP addresses and maintaining optimal network performance. The suitable subnet design for a branch office requiring 28 usable host addresses is abbreviated as _____.
- A. /26
 - B. /27
 - C. /28
 - D. /30
- (2 marks)
16. An IT department is implementing security policies and configuring access control across multiple user accounts within a centralised file-sharing environment on a Windows Server. Which one of the following features enables administrators to centrally manage user settings, security policies and software configurations across the network?
- A. NTFS Permissions
 - B. Windows Defender
 - C. Active Directory
 - D. Group Policy
- (2 marks)

17. A newly hired intern is tasked with automating daily data backup procedures on a Windows-based server that handles critical network services. Which one of the following tools can be used to plan and carry out repetitive administrative tasks?
- A. Task Scheduler
 - B. Event Viewer
 - C. Task Manager
 - D. Device Manager
- (2 marks)
18. Windows Server utilises a directory-based service to manage identities and access within an enterprise network, making it easier to retrieve and use information about network resources. The service that handles email, calendar, contacts, and collaboration functions is called _____.
- A. Domain Controller
 - B. Identity and Access Management
 - C. Microsoft Exchange
 - D. File and Storage Services
- (2 marks)
19. Virtualisation enhances resource use, scalability and cost-efficiency in enterprise IT by leveraging built-in server OS tools. Which one of the following is a Windows Server hypervisor that enables efficient virtual machine management?
- A. VirtualBox
 - B. Hyper-V
 - C. Windows Sandbox
 - D. VMware ESXi
- (2 marks)
20. Modern Windows server architectures enhance network performance by supporting various roles within an organisation. Which one of the following server responsibilities involves resolving domain names to IP addresses?
- A. DNS Server
 - B. File Server
 - C. Web Server (IIS)
 - D. DHCP Server
- (2 marks)
21. Server functionality in both small-scale and large enterprise organisations heavily depends on file and storage services. Which of the following features provides centralised access to shared files and folders across an intranet?
- A. Network File System
 - B. Common Internet File System
 - C. SharePoint Server
 - D. Distributed File System
- (2 marks)
22. Authentication and access control constitute the foundational components of secure server operation within institutional networks. A built-in security feature that helps to protect your computer by filtering incoming and outgoing network traffic based on predetermined security rules is known as _____.
- A. Antivirus software
 - B. Firewall
 - C. Intrusion Detection System (IDS)
 - D. Virtual Private Network (VPN)
- (2 marks)

23. An IT practitioner was assessing the appropriateness of Windows Server for various organisational contexts. Which one of the following server editions would be suitable for a business that requires robust virtualisation, high availability and support for large-scale infrastructure?
- A. Windows Server Foundation
 - B. Windows Server Standard
 - C. Windows Server Datacenter
 - D. Windows Server Essentials
- (2 marks)
24. An information system security analyst was evaluating Windows Server's suitability in a hybrid cloud environment. A feature that enables secure integration with Microsoft Azure services for identity management and access control is known as _____.
- A. Windows Defender Credential Guard
 - B. Azure site recovery
 - C. BitLocker drive encryption
 - D. Azure Active Directory Connect
- (2 marks)
25. From an academic standpoint, considering operational efficiency and scalability, which one of the following statements **BEST** illustrates automated deployment and configuration of roles and features across multiple servers in a data center?
- A. Utilising PowerShell Desired State Configuration to manage server roles and features
 - B. Installing Windows Admin Center to monitor and manage server configurations manually
 - C. Applying Group Policy Objects to enforce server role settings across machines
 - D. Using Windows Server Backup to replicate server configurations across nodes
- (2 marks)
26. In an Active Directory environment, which one of the following enables access to resources across domains based on predefined rules without requiring users to re-authenticate?
- A. Global Catalog
 - B. Trust Relationships
 - C. Group Policy Objects
 - D. Active Directory Schema
- (2 marks)
27. Large corporations frequently require domain controllers to connect across multiple sites in order to meet replication and authentication requirements within Active Directory. Which one of the following roles ensures the synchronisation of directory information between domain controllers in a multi-site deployment?
- A. RID Master
 - B. Infrastructure Master
 - C. Site Link Bridge
 - D. Knowledge Consistency Checker
- (2 marks)
28. Modern enterprise networks typically use intermediary technology to regulate and monitor internet usage. Which one of the following **BEST** describes the primary function of a proxy server?
- A. Filtering client requests and forwarding them to external servers
 - B. Encrypting network traffic for secure transmission
 - C. Allocating dynamic IP addresses to internal clients
 - D. Hosting domain name records for resolution purposes
- (2 marks)

29. In server configurations, certain network roles enable secure communication between internal clients and external networks. Which one of the following network service functions, when implemented, helps protect client identity and control access to internal resources?
- A. Request Forwarding and Response Relay
 - B. Content Filtering and Access Control
 - C. Enhanced Security and Anonymity
 - D. Protocol Support and Translation
- (2 marks)
30. File servers are frequently used by businesses with centralised storage solutions to improve data accessibility. Which one of the following email protocols allows access to messages from multiple devices by leaving them on the file server by default?
- A. FTP
 - B. IMAP
 - C. HTTP
 - D. SMB
- (2 marks)
31. Redundant file servers are normally utilised to ensure high availability and business continuity. Which one of the following technologies mirrors data in real-time to support fault tolerance?
- A. Load balancing
 - B. Virtual LAN segmentation
 - C. Dynamic Host Configuration Protocol
 - D. Distributed File System Replication
- (2 marks)
32. In a corporate environment where employees frequently access shared documents from multiple locations, which one of the following **BEST** explains why using a dedicated file server improves network efficiency compared to a peer-to-peer model?
- A. It centralises data storage and optimises data retrieval processes
 - B. It reduces electricity consumption across devices
 - C. It allows each client device to operate independently
 - D. It eliminates the need for any network security protocols
- (2 marks)
33. Maria notices that several client computers in a university computer laboratory are not automatically obtaining IP addresses. While troubleshooting the issue, which one of the following DHCP-related problems is **MOST** likely the cause?
- A. The client devices have outdated wireless drivers
 - B. The switch does not support VLAN configuration
 - C. The firewall is blocking HTTP traffic
 - D. The DHCP server has exhausted its available address pool
- (2 marks)
34. A system administrator configures DHCP to assign IP addresses dynamically as part of network optimisation, but ensures that some lab computers always receive the same IP address based on their MAC addresses. A DHCP feature that allows this type of implementation is referred to as _____.
- A. IP address forwarding
 - B. DHCP reservation
 - C. DHCP lease renewal
 - D. subnet masking
- (2 marks)

35. Wayne, a system instructor, is training a junior IT staff member on DHCP lease management ahead of a network audit. He explains that IP addresses assigned by a DHCP server have lease durations that must be periodically renewed. Which one of the following statements **BEST** explains the primary reason for using lease durations in DHCP?
- A. To allow address reuse and manage IP space
 - B. To improve overall DNS response time
 - C. To support encryption of transmitted data
 - D. To simplify switch port configurations
- (2 marks)
36. When an organisation uses the internet to access resources, delays occur. Investigations revealed that recursive name resolution is not operating properly. Which one of the following DNS server configurations is **MOST** likely responsible?
- A. Stub zone misconfiguration
 - B. Conditional forwarder failure
 - C. Missing root hints
 - D. Incorrect authoritative zone delegation
- (2 marks)
37. In a high-availability server-based network, which one of the following DNS configurations should be used on a secondary site server to enhance fault tolerance and ensure continuous name resolution?
- A. Create a forward lookup zone
 - B. Deploy a secondary DNS zone
 - C. Configure as a caching-only DNS server
 - D. Set up DNS dynamic updates
- (2 marks)
38. While setting up the DNS server role, the systems engineer specifies that only secure dynamic updates are permitted. This measure strengthens the protection and accuracy of DNS records. The primary benefit of this configuration is _____.
- A. prevention of unauthorised DNS record modifications
 - B. improved query resolution performance
 - C. enhanced data confidentiality through encryption
 - D. reduced DNS replication traffic
- (2 marks)
39. A company intends to implement a subnetting technique that minimises broadcast traffic and guarantees future scalability. Which one of the following design considerations aligns with best practices in subnetting?
- A. Using the smallest possible number of subnets to preserve address space
 - B. Allocating one subnet per VLAN based on functional departments
 - C. Assigning a /8 prefix to each department for maximum flexibility
 - D. Utilising automatic private IP addressing (APIPA) for all internal hosts
- (2 marks)
40. Organisations located in different geographic regions depend on cloud service providers for IP address allocation, with each having distinct networking needs. Which one of the following subnetting strategies supports efficient address utilisation and allows route summarisation?
- A. Class B subnetting with identical subnet masks across all regions
 - B. Using a flat addressing scheme with static routes
 - C. Hierarchical subnetting based on geographical topology
 - D. Configuring dynamic NAT with public IP pools
- (2 marks)

41. An infrastructure assessment indicates that, when multiple departments share a common subnet, it results in increased broadcast traffic and reduced administrative control over resource access. In this context, which one of the following statements **BEST** describes the advantage of subnetting?
- A. It removes the requirement for using IP addresses in the network
 - B. It separates user devices from printers using physical boundaries
 - C. It boosts wireless coverage strength across all departments
 - D. It secures the network and lowers traffic by splitting up segments
- (2 marks)
42. Critical web and database servers have recently been deployed by an organisation, but it is unable to observe system health and usage trends. In this context, which one of the following statements **BEST** describes the purpose of server monitoring?
- A. It restricts user access to administrative settings on client devices
 - B. It enables proactive detection of performance issues and resource bottlenecks
 - C. It increases network latency to reduce server resource consumption
 - D. It ensures compliance by enforcing physical access control to servers
- (2 marks)
43. The absence of data about server uptime and service availability was identified during a cybersecurity audit. Which one of the following options describes the risk of **NOT** implementing server monitoring?
- A. It promotes timely upgrades of user desktop operating systems with system security
 - B. It limits bandwidth usage by disabling non-essential services
 - C. It eliminates the need for physical server maintenance and repair
 - D. It impedes the organization's ability to detect service failures
- (2 mark)
44. During peak business hours, the server performance report indicates increased CPU usage. Monitoring features that can help administrators identify and resolve the underlying cause include _____.
- A. event logging for user authentication on client devices
 - B. firewall logs showing inbound traffic from unauthorised IP ranges
 - C. real-time alerting and historical trend analysis of server metrics
 - D. bios-level password protection to prevent unauthorised physical access
- (2 marks)
45. All files must be backed up by financial institutions irrespective of whether any modifications have occurred since the previous backup. Which one of the following backup types **BEST** fulfills this requirement?
- A. Snapshot Backup
 - B. Full Backup
 - C. Differential Backup
 - D. Incremental Backup
- (2 marks)
46. In large-scale enterprise applications, which one of the following limitations is **MOST** frequently connected to performing a snapshot backup daily?
- A. Significant storage and performance overhead
 - B. Inability to restore individual files or objects
 - C. High risk of data corruption during backup
 - D. Incompatibility with virtualised environments
- (2 marks)

47. A global company plans incremental backups on all other days and complete backups on Sundays. This strategy primarily aims to _____.
- A. Secure data transfers using encrypted synchronisation protocols
 - B. Speed up recovery by using only the latest backup version
 - C. Avoid the development of a full disaster recovery process
 - D. Manage storage use while enabling complete data restoration
- (2 marks)
48. To provide operational continuity in the enterprise IT ecosystem, virtualised workloads must recover quickly. Which one of the following solutions is designed to enable near-instant recovery of virtual machines following a failure?
- A. Remote Desktop Protocol
 - B. Hypervisor Snapshots
 - C. Content Delivery Network
 - D. Network Address Translation
- (2 marks)
49. Recovery Time Objective (RTO) is frequently emphasised in business continuity frameworks. Which one of the following **BEST** defines RTO in the context of data recovery?
- A. The specific time point to which data must be recovered
 - B. The maximum period of acceptable data loss
 - C. The total time allowed to restore a system after failure
 - D. The full storage space needed for backup operations
- (2 marks)
50. Administrative task delegation through organisational units (OUs) is made possible by Active Directory. Which one of the following statements **BEST** describes the primary function of an Organisational Unit?
- A. It allows logical grouping of objects for easier control
 - B. It manages file-level security using NTFS permissions
 - C. It ensures service availability using data replication
 - D. It separates network traffic into virtual LAN segments
- (2 marks)
-



DIPLOMA IN COMPUTER NETWORKS AND SYSTEMS ADMINISTRATION (DCNSA)

LEVEL II

WINDOWS SERVER ROLES AND FEATURES

TUESDAY: 3 December 2024. Morning Paper.

Time Allowed: 2 hours.

This paper consists of fifty (50) Multiple Choice Questions. Answer ALL questions by indicating the letter (A, B, C or D) that represents the correct answer. Each question is allocated two (2) marks.

1. A server's ability to run efficiently on both low-end machines and high-end, multi-processor systems is known as _____.
A. compatibility
B. portability
C. scalability
D. connectivity (2 marks)
2. Which hierarchical component does Windows Server Active Directory use to represent a collection of domains sharing a common namespace?
A. Forest
B. Tree
C. Catalog
D. Schema (2 marks)
3. Network speed and redundancy play crucial roles in determining the performance, reliability and availability of a Windows server infrastructure. Which key factor primarily influences network speed in large-scale deployments?
A. Number of CPU cores
B. Amount of RAM
C. Type of Network Interface Cards (NICs)
D. Bandwidth capacity of network switches (2 marks)
4. What makes implementation of two-factor authentication crucial in an environment that uses Remote Desktop Services?
A. To improve the speed of remote connections
B. To provide an additional layer of security
C. To reduce server downtime
D. To allow multiple users to access the server simultaneously (2 marks)
5. Disk quotas are restrictions established by a system administrator to limit the amount of file system space that a user or group can utilise. Disk quotas can effectively manage storage resources in environments with multiple users by _____.
A. preventing users from monopolising disk space for fair resource access
B. enhancing data retrieval speeds and reducing latency for all system users
C. encrypting files stored on the disk to prevent unauthorised user access
D. automatically compressing files to save storage space for all users involved (2 marks)

6. A firewall should be configured to effectively segregate various network zones such as public, private and DMZ within a server environment in order to _____.
A. enhance network performance
B. improve server hardware
C. securely control network traffic
D. implement faster data transfers (2 marks)
7. In the context of windows server, which component is essential for managing system configuration and can be accessed through tools such as 'regedit'?
A. Registry
B. Workgroup
C. Domain
D. Kerberos (2 marks)
8. Before installing a server with an operating system, it is important to verify that the hardware meets the necessary requirements. Where can you find the hardware specifications for a server operating system?
A. Google on the Internet
B. Ask the Vendor
C. Ask a colleague
D. Hardware Compatibility List (2 marks)
9. Which technology enables server virtualisation, optimises hardware resource utilisation and isolates various virtual environments?
A. Virtual Network Adapter
B. Hypervisor
C. Storage Array
D. Router (2 marks)
10. In a cloud computing environment, which component is responsible for overseeing the distribution of physical resources to various virtual instances, taking into account workload demands, performance requirements and the availability of resources?
A. Hypervisor
B. Virtual Machine Monitor (VMM)
C. Cloud Controller
D. Storage Area Network (SAN) (2 marks)
11. What is the term used for the device that assigns IP addresses to computers requesting access to their Local Area Network?
A. TCP/IP Server
B. IP Server
C. DNS Server
D. DHCP Server (2 marks)
12. Automating tasks enhance operational efficiency and minimise human errors in the management of Windows Server environments by _____.
A. allowing quicker deployment of system updates and patches
B. streamlining routine operations and reducing manual input
C. simplifying user access controls and permissions management
D. improving network monitoring and performance analysis (2 marks)

13. The framework used in Windows Server for management of applications, offering a unified administration interface for Microsoft and third-party management tools is known as _____.
A. Microsoft snap-in management console
B. Panel management console
C. Microsoft Management console
D. Device Manager console (2 marks)
14. What is the mechanism that prevents infinite loops in routing and ensures that misrouted packets do not clog the network?
A. Time To Live
B. NAT
C. Sliding
D. Latency (2 marks)
15. As a system administrator in a medium-sized organisation, you receive a request from a colleague for access to shared files on a remote server. To help them, you need to quickly identify the available network resources and shares. Which command in Windows Server can you use to list the available network resources and shares on a local or remote machine?
A. Net user
B. Net View
C. User
D. Uname (2 marks)
16. Windows Server is a versatile platform that can support a wide range of applications and services. What attribute defines the access rights and permissions granted to a user?
A. User logon name
B. First Name
C. Password
D. Group membership (2 marks)
17. Which command-line tool can be used to manage user accounts in active directory?
A. dsadd
B. chkdsk
C. promo
D. ipconfig (2 marks)
18. Justify why you would implement a Virtual Private Network (VPN) on a Windows Server.
A. To increase the server's memory
B. To assign dynamic IP addresses to users
C. To secure it from external attackers
D. To enable faster server startup (2 marks)
19. What occurs when a user is removed from a group that has access permission for a shared folder?
A. The user retains access indefinitely
B. The user immediately loses access to the folder
C. The user's access is removed after a reboot
D. The user must be manually removed from the folder's access list (2 marks)

20. How would you protect sensitive data by ensuring that only authorised users can access and read the data even if the files are intercepted?
- A. Encryption
 - B. Authentication
 - C. Authorisation
 - D. Auditing
- (2 marks)
21. Windows Server offers a variety of services for businesses and organisations. Which service is mainly responsible for hosting websites and web applications?
- A. Dynamic Host Configuration Protocol (DHCP)
 - B. Domain Name System (DNS)
 - C. Simple Mail Transfer Protocol (SMTP)
 - D. Internet Information Services (IIS)
- (2 marks)
22. In the context of the virtual machines, a snapshot is_____.
- A. a real-time backup of a physical machine
 - B. a saved state of a VM at a particular point in time
 - C. a method of increasing the performance of a VM
 - D. a software feature to monitor network traffic
- (2 marks)
23. Which component should be included in network testing documentation to ensure thorough coverage of the testing process?
- A. A timeline detailing the phases of the project
 - B. A list of all hardware devices in the network
 - C. A detailed description of testing methods and results
 - D. A summary of feedback from users on performance
- (2 marks)
24. Role-Based Access Control (RBAC) assigns permissions according to a user's roles within an organisation instead of granting individual permissions to each user. File access management can be improved in a collaborative work environment by_____.
- A. providing open access to shared resources for all
 - B. enforcing strong password policies for users
 - C. allowing user requests for file access approval
 - D. creating role-based access control for each group
- (2 marks)
25. Which memory management technique allows multiple processes to run simultaneously in their own memory space?
- A. Paging
 - B. Fragmentation
 - C. Swapping
 - D. Segmentation
- (2 marks)
26. Which role is responsible for authenticating users and enforcing security policies in a domain environment?
- A. DHCP Server
 - B. Active Directory Domain Services (ADDS)
 - C. DNS Server
 - D. File and Storage Services
- (2 marks)

27. Which tool provides a centralised platform for managing features, roles and settings on the server?
- A. Server based network
 - B. Windows Admin Center
 - C. VirtualBox
 - D. Server Manager
- (2 marks)
28. Which windows server feature offers real-time protection against malware and other security threats?
- A. Windows Defender
 - B. Failover Clustering
 - C. Windows PowerShell
 - D. Nginx
- (2 marks)
29. A network environment consists of interconnected devices that communicate through a shared set of rules and protocols. It is important to configure a DNS server in a network environment in order to_____.
- A. host file shares for users
 - B. manage dynamic IP address assignment
 - C. translate domain names into IP addresses
 - D. enforce user authentication policies
- (2 marks)
30. Regular disk cleaning in windows server help improve performance and stability by_____.
- A. increasing network bandwidth and lowering latency
 - B. freeing up storage space and optimising system resources
 - C. updating all drivers and improving server efficiency
 - D. reducing disk fragmentation and boosting read speeds
- (2 marks)
31. Disk partitioning involves dividing a physical drive into multiple logical sections. This enhances data organisation and improves access speed in large-scale storage systems by_____.
- A. isolating system files from user data for faster access
 - B. allowing multiple users to access files simultaneously
 - C. reducing network congestion and improving bandwidth
 - D. optimising data placement for faster read/write speeds
- (2 marks)
32. The primary purpose of Organisational Units (OUs) in Active Directory is to_____.
- A. provide a way to group and manage objects
 - B. create security boundaries between objects
 - C. store passwords for users
 - D. manage file permissions on the network
- (2 marks)
33. Which DHCP component defines the range of IP addresses that can be assigned to clients?
- A. DHCP Options
 - B. DHCP Lease
 - C. DHCP Reservation
 - D. DHCP Scope
- (2 marks)

34. Which one of the following statements **BEST** explains the Virtual Machines as used in Windows servers and roles?
- A. A physical server used for hosting applications
 - B. A software emulation of a physical computer system
 - C. A device used for storing and managing data
 - D. A security protocol used in network configurations
- (2 marks)
35. What type of management interface provides a user-friendly way to configure and manage server settings in a Windows environment?
- A. GUI-based management interface
 - B. Command-line only access
 - C. Only available for personal use
 - D. Incompatible with Active Directory
- (2 marks)
36. What role does a router play in facilitating communication between multiple devices on the windows server domain environment?
- A. It assigns IP addresses to devices in the network
 - B. It manages user authentication for network access
 - C. It connects different networks and forwards data packets
 - D. It monitors network traffic and prevents intrusions
- (2 marks)
37. Which one of the following statements outlines the essential steps required to prepare network devices for deployment in an organisational network?
- A. Conducting a site survey and selecting the right devices
 - B. Configuring device settings and updating firmware
 - C. Testing the network connection and ensuring compatibility
 - D. Documenting the installation process and user guidelines
- (2 marks)
38. As an IT manager, you are responsible for deploying virtual machines for a new application designed to support your organisation's operations. This application is anticipated to handle significant user traffic and requires high availability. What considerations should be considered when planning the deployment of virtual machines in a production environment?
- A. Ensuring adequate hardware resources and load balancing
 - B. Selecting only low-cost virtual machines for deployment
 - C. Limiting user access to the virtual machine environment
 - D. Avoiding backup procedures for the virtual machines
- (2 marks)
39. Which command-line utility in Windows Server can be used to display the current network paths along with their associated metrics?
- A. ipconfig
 - B. netconfig
 - C. route print
 - D. ping
- (2 marks)
40. Which one of the following is a metric for monitoring network traffic on a server?
- A. Memory usage
 - B. Disk usage
 - C. Packet loss
 - D. Processor architecture
- (2 marks)

41. What type of server acts as a bridge between clients and other servers, often utilised to enhance network security and performance?
- A. Bastion server
 - B. Middleware server
 - C. Application server
 - D. Proxy server
- (2 marks)
42. Internet Protocol version 6 (IPv6) is the next-generation IP addressing protocol designed to replace IPv4. Which one of the following statements justifies transition to IPv6?
- A. IPv6 uses longer addresses for enhanced network security
 - B. IPv4 addresses are becoming scarce and limited in availability
 - C. IPv4 does not support mobile device connectivity effectively
 - D. IPv6 addresses are simpler to configure than IPv4 addresses
- (2 marks)
43. The main purpose of using dynamic IP addresses in a Windows Server production network, regarding configuration and usage is to _____.
- A. increase the overall security of the network infrastructure
 - B. limit network traffic by reducing the number of devices
 - C. allocate fixed IP addresses to critical devices permanently
 - D. simplify the management of IP addresses within the network
- (2 marks)
44. Your organisation depends on a critical CRM application hosted on Windows Server. To prevent downtime and ensure continuous access, you need to implement a solution that maintains application availability even during server failures. High availability for a critical application in Windows Server can be enabled by _____.
- A. enabling the Hyper-V feature
 - B. setting up a VPN
 - C. configuring Failover Clustering
 - D. configuring a DNS server
- (2 marks)
45. Which one of the following statements demonstrates how cable quality affects data transmission speeds and network reliability in a windows server environment?
- A. Cables with thicker insulation are more flexible and easier to use
 - B. High-quality cables reduce interference and signal loss
 - C. Lower-quality cables always provide faster data transfer rates
 - D. All cables perform equally well in any network setup
- (2 marks)
46. Subnetting enables efficient allocation of IP addresses, better network organisation and increased security. What factor should you take into account when designing subnets?
- A. Number of hosts required per subnet
 - B. Speed of the internet connection
 - C. Geographic location of users
 - D. Topology of the computer network
- (2 marks)
47. Which one of the following commands can be used in PowerShell to display the currently logged-in user?
- A. ps
 - B. dir
 - C. pwd
 - D. whoami
- (2 marks)

48. Which one of the following policies secures the Windows Server by specifying the number of minutes that must pass after two unsuccessful login attempts before further attempts are allowed?
- A. Account lockout threshold
 - B. Account lockout duration
 - C. Reset account lockout after
 - D. Maximum password age
- (2 marks)
49. Which one of the following protocols is primarily used for sending emails from a mail server?
- A. Internet Message Access Protocol (IMAP)
 - B. Post Office Protocol version 3 (POP3)
 - C. Simple Mail Transfer Protocol (SMTP)
 - D. File Transfer Protocol (FTP)
- (2 marks)
50. What benefit does Redundant Array of Independent Disks (RAID) offer in server storage?
- A. Provides data redundancy and improves performance
 - B. Reduces latency in network communication
 - C. Increases data transfer speeds for cloud storage
 - D. Replaces SAN for high-performance applications
- (2 marks)
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DIPLOMA IN COMPUTER NETWORKS AND SYSTEMS ADMINISTRATION (DCNSA)

LEVEL II

WINDOWS SERVER ROLES AND FEATURES

TUESDAY: 20 August 2024. Morning Paper.

Time Allowed: 2 hours.

This paper consists of fifty (50) Multiple Choice Questions. Answer ALL questions by indicating the letter (A, B, C or D) that represents the correct answer. Each question is allocated two (2) marks.

1. Which role in a windows server is responsible for managing and deploying server images and programs to networked devices?
A. DHCP services
B. Windows Deployment Services (WDS)
C. File and Storage Services
D. Remote Desktop Services (2 marks)
2. In the context of windows server environment, which one of the following statements **BEST** describes purpose of Remote Server Administration Tools (RSAT)?
A. To deploy server images and programs to networked devices
B. To provide a virtualisation platform for running multiple virtual machines
C. To allow administrators to manage roles and features on a remote Windows Server
D. To provide file storage and sharing services (2 marks)
3. Mary wants to choose a Windows server edition for a small business with up to 25 users. Which one of the following edition would you recommend?
A. Windows Server Standard
B. Windows Server Datacenter
C. Windows Server desktop experience
D. Windows Server Essentials (2 marks)
4. What is the purpose of a checkpoint as used in Hyper-V technology?
A. A backup of the physical server
B. A snapshot of the VM state at a specific point in time
C. Moving running VMs from one physical host to another
D. To enable dynamic memory allocation (2 marks)
5. In the context of Active Directory (AD), which one of the following is a container used to organise objects within a domain?
A. Organisational Unit
B. Forest
C. Workgroup
D. Tree (2 marks)
6. Which one of the following is a critical consideration when acquiring a Windows Server license?
A. The appearance of the software packaging
B. Number of Client Access Licenses (CALs) required
C. Availability of a printed user manual
D. Popularity of the software on social media (2 marks)

7. What Windows Server feature encrypts data transmitted over the network, securing communication between servers and clients?
- A. BitLocker Drive Encryption
 - B. Windows Defender Firewall
 - C. Network Policy and Access Services
 - D. Secure Socket Layer Encryption
- (2 marks)
8. Which one of the following is a primary benefit of using cloud-based backup solutions?
- A. Increased local storage utilisation
 - B. Improved backup and restore performance for local systems
 - C. Offsite storage providing disaster recovery capabilities
 - D. Simplified network configuration
- (2 marks)
9. Which component of Windows Server architecture provides a secure environment for running applications and services?
- A. Kernel
 - B. User Mode
 - C. Hardware Abstraction Layer (HAL)
 - D. System Services
- (2 marks)
10. What type of group in the Active directory is used primarily to allow emails to be sent to a group of people using a single email address, simplifying communication within organisations distribution lists?
- A. Security Group
 - B. Global Group
 - C. Domain Local Group
 - D. Distribution Group
- (2 marks)
11. What is the **MOST** important consideration when purchasing network security solutions for windows server?
- A. Compatibility with existing Windows Server roles and features
 - B. Number of lights on the front panel of the security device
 - C. Colour and design of the security device
 - D. Availability of an audio alert system
- (2 marks)
12. Which one of the following benefits of server virtualisation makes it easier to add more virtual machines?
- A. Flexibility
 - B. Adaptability
 - C. Scalability
 - D. Resource Optimisation
- (2 marks)
13. Which one of the following documents should you check before purchasing a windows server software upgrade?
- A. Software installation guide
 - B. End User License Agreement
 - C. Hardware warranty document
 - D. Physical media cover design
- (2 marks)
14. Which one of the following utility can be used to partition disks in a windows server?
- A. Disk Cleanup
 - B. Disk Defragmenter
 - C. Disk Management
 - D. Disk Quotas
- (2 marks)
15. Which technique is used to distribute network traffic across multiple servers to ensure no single server is overwhelmed?
- A. Clustering
 - B. Load Balancing
 - C. Caching
 - D. Fragmentation
- (2 marks)

16. Which type of server allows users to refer to network computers by using easy-to-remember names instead of a long series of numbers?
A. AD
B. DHCP
C. SMTP
D. DNS (2 marks)
17. You need to set up a web server to host your company's website. Which feature of Windows Server would you use for this purpose?
A. DNS Server
B. DHCP Server
C. IIS Server
D. File and Storage Services (2 marks)
18. Which policy specifies the complexity criteria for server passwords in a windows environment?
A. Network policy
B. Group Policy
C. Server Policy
D. Security Policy (2 marks)
19. Which term is used in server administration to refer to the act of allowing specific staff to be responsible for specific tasks?
A. Authorisation
B. Conformity
C. Delegation
D. Collaboration (2 marks)
20. What is the function of a server name in a network?
A. Assign IP addresses
B. Manage user accounts
C. Configure firewall rules
D. Identify a specific server (2 marks)
21. Which port number is typically used for HTTP web traffic in a server?
A. 80
B. 443
C. 22
D. 53 (2 marks)
22. What is the principal objective of integrating proxy server software into network infrastructure?
A. Managing web content and blogs
B. Facilitating email communication within the organisation
C. Hosting dynamic web applications
D. Enforcing access controls and content filtering policies (2 marks)
23. When installing a new windows server for a small business, what should be the first priority during setup?
A. User profiles
B. Shared folders
C. Initial server settings
D. Printer configurations (2 marks)
24. The feature in Server Manager that allows monitoring server performance is called _____.
A. Dashboard
B. Switch Manager
C. Server Manager
D. Virtual Switch (2 marks)
25. What is a computing storage management technique that dynamically assigns storage space to servers, apps or virtual machines (VMs).
A. RAID
B. NAS
C. Virtualisation
D. Thin provisioning (2 marks)

26. The ability to replace failed disk drives without interrupting server operation feature of server hardware is known as _____.
A. hot-swappable disk drives
B. redundant power supplies
C. multiple processors (CPUs)
D. large amounts of memory (RAM) (2 marks)
27. The Network Operating System (NOS) should function correctly across different operating systems with a variety of network protocols and standards to ensure interoperability with different types of network hardware and software. This network characteristic is referred to as _____.
A. extendibility
B. portability
C. scalability
D. compatibility (2 marks)
28. From a system administration perspective, which one of the following is a primary factor when setting up a user accounts?
A. User roles and responsibilities
B. Password complexity requirements
C. Account deletion procedures
D. Authentication method selection (2 marks)
29. ABC Company is setting up its network infrastructure and needs to designate specific server roles to manage various services efficiently. The Company wants a server role that manages user authentication and access control within a Windows Active Directory domain. Which option meets this requirement?
A. File Server
B. Web Server
C. Domain Controller
D. Database Server (2 marks)
30. Which Windows Server installation option provides a minimalistic version without a GUI?
A. Server Core
B. Desktop Experience
C. Nano Server
D. Standard Edition (2 marks)
31. What is the name for a collection of one or more domains that share a common root domain and a continuous namespace, as used in the Active Directory structure?
A. Root
B. Domain
C. Forest
D. Tree (2 marks)
32. When configuring a DHCP server, what considerations could be taken into account to ensure efficient IP address management and minimise network downtime?
A. Setting up strict access controls for network resources
B. Configuring DNS server addresses for automatic updates
C. Implementing IP address ranges and lease durations
D. Enforcing encryption protocols for data transmission (2 marks)
33. The purpose of authentication in account management in window server is to _____.
A. specify user permissions
B. verify the identity of the user
C. determine the account creation date
D. facilitate account deletion (2 marks)
34. Which one of the following actions is necessary when creating a new file in a file system?
A. Read permission
B. Write permission
C. Execute permission
D. Delete permission (2 marks)

35. Which approach is used to allow several people to access and modify a file at the same time?
- A. File locking
 - B. File compression
 - C. File encryption
 - D. File synchronisation
- (2 marks)
36. Which of the following is **NOT** a feature of server core installation?
- A. Full-fledged desktop experience similar to Windows client operating systems
 - B. Command-line interface (CLI) for configuration and management using PowerShell or Command Prompt
 - C. Reduced attack surface and resource footprint compared to GUI installation
 - D. Suitable specific server roles such as Active Directory Domain Services, DNS, DHCP and Hyper-V
- (2 marks)
37. What is the **MOST** important factor to keep in mind when recovering files from a backup after a server crash?
- A. Increasing file permissions
 - B. Checking file integrity
 - C. Converting file formats
 - D. Compressing file size
- (2 marks)
38. Which one of the following is **NOT** a functionality of an email server?
- A. Facilitates electronic mail communication between users within and outside the organisation
 - B. Manages email storage, retrieval and delivery according to user preferences and policies
 - C. Ensures email security and compliance with regulatory requirements
 - D. Executes email server-side scripts and applications
- (2 marks)
39. What is the primary functionality of a database server in an organisation's IT infrastructure?
- A. Facilitating electronic mail communication
 - B. Centralised file storage and sharing
 - C. Storing, retrieving and managing structured data
 - D. Hosting websites and web applications
- (2 marks)
40. What type of backup only copies data that has changed since the last backup?
- A. Incremental Backup
 - B. Full Backup
 - C. Differential Backup
 - D. Mirror Backup
- (2 marks)
41. What server software solution would you advise implementing for efficient IP address management and allocation?
- A. Managing user authentication and centralised identity management
 - B. Dynamically allocating IP addresses to network devices
 - C. Hosting websites and web applications
 - D. Facilitating email communication within an organisation
- (2 marks)
42. Which one of the following statements **BEST** describes the key principle of the 3-2-1 backup rule?
- A. Three copies of data, on two different media, with one copy offsite
 - B. Three copies of data, on one media, with two copies offsite
 - C. Two copies of data, on three different media, with one copy offsite
 - D. One copy of data, on two different media, with three copies offsite
- (2 marks)
43. The process of moving the functions, configurations, data and settings from one server to another is known as _____.
- A. porting
 - B. extension
 - C. configuration
 - D. migration
- (2 marks)

44. A relationship, which you establish between domains that makes it possible for users in one domain to be authenticated by a domain controller in the other domain, is known as _____.
A. federation
B. trust
C. delegation
D. domain linking (2 marks)
45. Which one of the following statements distinguishes a File Server and a Print Server in a network environment?
A. Both File Server and Print Server manage file sharing
B. Both File Server and Print Server manage network security
C. Print Server manages file storage, while File Server manages print jobs
D. File Server manages file storage, while Print Server manages print jobs (2 marks)
46. What is the network address for the IP address is 192.168.10.35 with a subnet mask of 255.255.255.224?
A. 192.168.10.0
B. 192.168.10.32
C. 192.168.10.64
D. 192.168.10.128 (2 marks)
47. Which one of the following is **NOT** a type of a network server?
A. Blade server
B. Print server
C. Application server
D. Domain controller (2 marks)
48. How do integrating on-premises servers with cloud services enhance an organisation's IT infrastructure?
A. Increasing server hardware costs
B. Enhancing scalability and flexibility
C. Reducing network security
D. Decreasing data storage capacity (2 marks)
49. What is a critical component of a disaster recovery plan?
A. Using virtualisation technology
B. Purchasing software from known sources
C. Regular data backups
D. Frequent hardware upgrading (2 marks)
50. Which feature of Windows Server could you use to monitor and manage server CPU and memory usage?
A. File Server Resource Manager
B. Windows Event Viewer
C. Task Manager
D. Performance Monitor (2 marks)
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DIPLOMA IN COMPUTER NETWORKS AND SYSTEMS ADMINISTRATION (DCNSA)

LEVEL II

WINDOWS SERVER ROLES AND FEATURES

TUESDAY: 23 April 2024. Morning Paper.

Time Allowed: 2 hours.

Answer ALL questions by indicating the letter (A, B, C or D) that represents the correct answer. This paper is made up of fifty (50) Multiple Choice Questions. Each question is allocated two (2) marks.

1. Which one of the following **BEST** describes why servers are required for centralised data backup and storage?
 - A. Centralised storage supports database sharing in a network
 - B. Centralised storage enhances data accessibility
 - C. Workstations automatically handle data storage and backup
 - D. Servers are only necessary for small networks(2 marks)
2. Servers are intended to give enterprise-level management, scalability and security features to businesses and organisations. What is the primary purpose of using disk quotas on a server?
 - A. To allocate specific amounts of disk space to users, groups or folders
 - B. To prevent unauthorised access to files and folders
 - C. To improve server performance by optimising disk usage
 - D. To encrypt sensitive data stored on the server(2 marks)
3. In order to prevent data loss, which of the following **BEST** describes the procedure for creating an exact replica of data?
 - A. Replication
 - B. Redundancy
 - C. Mirroring
 - D. Cloning(2 marks)
4. The type of network testing technique involves measuring the time it takes for a packet to travel from the source to the destination and back is known as _____.
 - A. Bandwidth testing
 - B. Latency testing
 - C. Throughput testing
 - D. Ping testing(2 marks)
5. What is the principle of least privilege in relation to user account management?
 - A. Restricting users to only the permissions they need
 - B. Granting users the maximum possible access available
 - C. Assigning random permissions to users
 - D. Ignoring user permissions(2 marks)
6. What is the main purpose of file restoration and recovery in a server?
 - A. Permanently deleting unwanted files
 - B. Optimising disk space usage
 - C. Preventing unauthorised access to files
 - D. Recovering lost or corrupted data(2 marks)

7. What is the name of utility that monitors and optimises Windows server's performance?
A. Firewall
B. Active Directory
C. Performance Monitor
D. PowerShell (2 marks)
8. In relation to traditional server deployments, what is the key advantage of Hyper-V?
A. Increased hardware costs
B. Slower data processing speeds
C. Limited support for multiple operating systems
D. Enhanced server flexibility and resource utilisation (2 marks)
9. In a Windows server context, what is the main purpose of Disk Part command?
A. Defragmenting hard drives
B. Managing disk partitions and volumes
C. Scanning for malware
D. Creating backup images (2 marks)
10. A tangible piece of hardware in a server where data is stored through hard disk drive (HDD) or solid-state drive (SSD) is known as _____.
A. Logical drive
B. Partition
C. Physical drive
D. Allocation unit (2 marks)
11. What is the primary purpose of account lockout policies?
A. To restrict access to user accounts
B. To increase user privileges
C. To authenticate the server access
D. To create security incidents (2 marks)
12. Which technology is essential for ensuring compatibility between a server's storage devices and the motherboard?
A. HDMI
B. USB-C
C. Thunderbolt
D. SATA (2 marks)
13. Why is role-based access control in server settings so important to implement?
A. To disable user accounts for the system users
B. To restrict access based on job responsibilities
C. To increase server speed
D. To overlook security measures (2 marks)
14. What is the technical term for the automated process of switching to redundant components or paths when a network breakdown is detected?
A. Load balancing
B. Failover
C. Bandwidth throttling
D. Virtualisation (2 marks)
15. Select a scenario where the use of crossover cables is essential for connecting two devices directly.
A. Connecting a switch to a router
B. Connecting a workstation to a switch
C. Connecting two switches together
D. Ignoring the need for direct device connections (2 marks)
16. Which one of the following describes the effects of **NOT** applying disk quotas in a network environment?
A. Loss of data in case of a black-out
B. Increased risk of storage misuse, leading to potential issues
C. Disk quotas only apply to external drives
D. Quotas are unnecessary for efficient storage management (2 marks)

17. Server logs are basically used to monitor and troubleshoot server issues, track user activities and ensure the security and performance of the server. Why is regular server log monitoring important?
- A. To identify and respond to security incidents
 - B. To authenticate the legitimate users logging to the system
 - C. To remove the unnecessary files from the computer system
 - D. To authorise the system access and assign privileges
- (2 marks)
18. What is the primary purpose of Active Directory Federation Services (ADFS) in a network environment?
- A. Enhancing server aesthetics
 - B. Centralised user authentication and Single Sign-On (SSO)
 - C. Managing file permissions on network shares
 - D. Optimising network bandwidth usage
- (2 marks)
19. With reference to server management tools, what is the **MAIN** advantage of using Powershell over the traditional GUI-based server management tools?
- A. It has a high learning curve for system administrators
 - B. More efficient for bulk operations and complex tasks
 - C. Slower execution of tasks
 - D. Less flexibility in scripting
- (2 marks)
20. What is the primary objective of the Windows server service known as "Windows Update"?
- A. Manage user accounts
 - B. Provide system backup
 - C. Install security patches
 - D. Configure network settings
- (2 marks)
21. Which Windows Server feature provides a distributed file system that allows files to be accessed from multiple servers?
- A. BitLocker encryption options
 - B. File Server Resource Manager (FSRM)
 - C. BitLocker Drive Encryption
 - D. Distributed File System (DFS)
- (2 marks)
22. Which optimisation technique involves combining multiple physical servers into a single virtual server to improve resource utilisation?
- A. Load balancing
 - B. Virtualisation
 - C. Clustering
 - D. Redundancy
- (2 marks)
23. In what way does network security benefit from active directory in a windows server environment?
- A. By providing antivirus protection to protect the users
 - B. By encrypting network traffic to conceal the meaning of data
 - C. By managing user access and permissions
 - D. By preventing hardware failures
- (2 marks)
24. Which one of the following statements **BEST** describes the primary purpose of Windows server features?
- A. To enhance the graphical user interface for human computer interaction
 - B. To provide additional functionality to the operating system
 - C. To improve system security to minimise illegitimate users access
 - D. To control and manage the hardware resources
- (2 marks)
25. Why is it necessary to monitor and adjust firewall rules on a regular basis while utilising a Windows server?
- A. To create security incidents
 - B. To increase server speed
 - C. To keep the system administrators busy
 - D. To adapt to changing network threats
- (2 marks)
26. What is a key consideration when determining the appropriate server acquisition method for an organisation?
- A. Server color and design aesthetics
 - B. The latest server brand in the market
 - C. The organisation's specific requirements and budget constraints
 - D. Availability of gaming features in the server
- (2 marks)

27. An essential component of preserving security, access control and the smooth operation of an IT infrastructure is server user account management. Which procedure entails deactivating user accounts or blocking their access to resources?
- A. Setting usernames and passwords
 - B. Disabling unnecessary accounts
 - C. Deleting unnecessary accounts
 - D. Delegating unnecessary accounts
- (2 marks)
28. In a hierarchical network design, where is a switch normally located to connect end-user devices such as workstations?
- A. At the core
 - B. At the distribution layer
 - C. At the access layer
 - D. At the edge
- (2 marks)
29. When a workstation wishes to communicate with a device on a separate network, what function does a router serve?
- A. It determines the optimal path for data between networks
 - B. It manages local device connections
 - C. It provides centralised services to other devices
 - D. It forwards data within the same network
- (2 marks)
30. In what way does a DNS server facilitate internet communication?
- A. By providing internet speed optimisation
 - B. By encrypting data during transmission
 - C. By managing email services to prevent email phishing
 - D. By translating domain names to IP addresses
- (2 marks)
31. In a Windows Server context, network management entails managing and keeping a close watch on the services and resources available on the network. Choose the situation from the list below where network administration requires a DHCP server.
- A. Small home network with static IP addresses
 - B. Large office network with multiple devices
 - C. Single-user computer system
 - D. Public Wi-Fi hotspot with limited users
- (2 marks)
32. In Active Directory Domain Services, what is the major purpose of a domain controller?
- A. File storage
 - B. Web hosting
 - C. User authentication
 - D. Provides email services
- (2 marks)
33. What does an organisational unit (OU) in Active Directory mean?
- A. It is a container for organising objects within a domain
 - B. It is a security protocol for data encryption
 - C. It is a specialised DNS record
 - D. It is a type of user account
- (2 marks)
34. Which one of the following **BEST** exemplifies the role of a centralised print server in managing print queues and resources?
- A. Increased print job processing times and spooling
 - B. Improved internet speed and connectivity
 - C. Manage the print layouts and the number of copies required
 - D. Efficient management of print jobs and printer resources
- (2 marks)
35. Which feature makes it possible to transfer an active virtual machine across Hyper-V hosts without experiencing any downtime?
- A. Live Migration
 - B. Snapshot
 - C. Quick Migration
 - D. Checkpoint
- (2 marks)

36. Under what circumstances would it be advantageous to use PowerShell scripts for server management?
- A. Only for basic file operations
 - B. When a graphical user interface is preferred
 - C. When automating repetitive administrative tasks
 - D. Only for troubleshooting network issues
- (2 marks)
37. What role does a virtual disk play in the physical-to-virtual conversion process?
- A. To increase network speed
 - B. To store virtual machine files
 - C. To provide additional RAM
 - D. To enhance graphics performance
- (2 marks)
38. What does the documentation for network testing serve as its **MAIN** objective?
- A. To troubleshoot network issues
 - B. To design a network architecture
 - C. To document network security policies
 - D. To install network equipment
- (2 marks)
39. Which document outlines the requirements for finishing network testing successfully?
- A. Network Diagram
 - B. Test Case
 - C. Test Plan
 - D. Acceptance Criteria
- (2 marks)
40. Which command line interface (CLI) script will use the ping command to continuously check network connectivity?
- A. loop ping www. gmail.com
 - B. ping -t www.gmail.com
 - C. ping -n 1000 www. gmail.com
 - D. continuous ping www. gmail.com
- (2 marks)
41. Which management tool gives network administrators the ability to centrally monitor and manage printers?
- A. Device Manager
 - B. Print Queue
 - C. Print Server
 - D. Printer Preferences
- (2 marks)
42. Choose a scenario where the use of static IP addresses on workstations is more advantageous than using dynamic IP addresses from the scenarios below.
- A. Ignoring the need for IP addresses on workstations
 - B. Relying solely on routers for IP address assignment
 - C. Managing a dynamic and frequently changing network environment
 - D. Ensuring consistent and predictable IP addresses for specific workstations
- (2 marks)
43. Which technology enables network printers to receive documents printed from mobile devices for server users?
- A. AirPrint
 - B. Bluetooth
 - C. Near Field Communication (NFC)
 - D. Wi-Fi Direct
- (2 marks)
44. What is the **ACCURATE** term for the process of partitioning a hard disk into multiple logical storage units?
- A. Formatting
 - B. Disk Shrinking
 - C. Partitioning
 - D. Quota Management
- (2 marks)
45. In data storage management, what is meant by "data deduplication"?
- A. Encrypting stored data
 - B. Reducing redundant copies of data to save storage space
 - C. Managing RAID configurations
 - D. Managing mirroring configurations
- (2 marks)

46. What is the name given to the alphanumeric code that a server uses to verify and activate its software license?
- A. Digital certificate
 - B. Server name key
 - C. Private key
 - D. Product key
- (2 marks)
47. Which one of the following **BEST** demonstrates the effects of deactivating the firewall on a server?
- A. Decline in the server processor performance
 - B. Increased vulnerability to unauthorised access
 - C. Firewalls are automatically managed by the network
 - D. Routers automatically secure servers without firewalls
- (2 marks)
48. What is the purpose of a load balancer in server configuration?
- A. Managing user authentication
 - B. Allocating IP addresses to devices
 - C. Controlling server access permissions
 - D. Distributing network traffic across multiple servers
- (2 marks)
49. Why should you consider the impact on server functionality while eliminating role services?
- A. To increase server performance
 - B. To free up storage space
 - C. To avoid potential disruptions
 - D. To simplify server management
- (2 marks)
50. In server configuration, the Basic Input/output System (BIOS) is used for which of the following reasons?
- A. Manage network connections
 - B. Control input devices like keyboard and mouse
 - C. Initialise hardware components during startup
 - D. Manage server applications
- (2 marks)
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DIPLOMA IN COMPUTER NETWORKS AND SYSTEMS ADMINISTRATION (DCNSA)

LEVEL II

WINDOWS SERVER ROLES AND FEATURES

TUESDAY: 5 December 2023. Morning Paper.

Time Allowed: 2 hours.

Answer ALL questions by indicating the letter (A, B, C or D) that represents the correct answer. This paper is made up of fifty (50) Multiple Choice Questions. Each question is allocated two (2) marks.

1. Which of the following controls access to network resources within a Windows domain handles network security and authenticates user accounts?
 - A. File Server
 - B. Print Server
 - C. DHCP Server
 - D. Domain Controller(2 marks)
2. Windows server roles and features are software components that give servers the ability to carry out particular tasks. In what ways are "server roles" and "server features" different?
 - A. Roles are used for client computers, while features are for servers
 - B. Roles are optional, while features are mandatory
 - C. Roles provide specific server functionality, while features add supplementary functionality
 - D. Roles are used in Windows Server, while features are used in Windows Desktop(2 marks)
3. Mary Wanyamah a newly recruited intern was instructed by her supervisor to free up storage space, improve computer's performance, and maintain a more organised file system. Which of the following can be used to help Mary complete the task given to her?
 - A. Storage sense
 - B. Fslogix
 - C. Disk cleanup
 - D. Chkdsk(2 marks)
4. System administrators, IT teams and auditors must have well-organised network testing documentation in order to comprehend, manage and enhance the network architecture. Which of the following components of network testing documentation provides guidance to end users on how to use Virtual Private Networks (VPNs), connect to the network and adhere to security standards?
 - A. Troubleshooting Guides
 - B. Security Policies and Procedures
 - C. Inventory of Network Equipment
 - D. User Training Documentation(2 marks)
5. A computer network's performance, effectiveness and general quality can be improved through a process known as _____.
 - A. Network Monitoring
 - B. Network Documentation
 - C. Network Optimisation
 - D. Network Virtualisation(2 marks)
6. The process of continuously tracking and analysing server performance and resource utilisation to ensure optimal operation is referred to as _____.
 - A. Server monitoring
 - B. Performance optimisation
 - C. Server troubleshooting
 - D. Server patching(2 marks)

7. Enterprise environments refer to the complex and often large-scale computing environments within organisations. Which of the following operating systems is **BEST** for use in enterprise environments?
- A. Windows 10
 - B. macOS
 - C. Windows Server
 - D. Linux Mint
- (2 marks)
8. Which Windows server role is responsible for allocating IP addresses to network clients and administering them?
- A. DNS Server
 - B. DHCP Server
 - C. VPN Server
 - D. Web Server
- (2 marks)
9. Which of the following is a characteristic of a Network Operating System (NOS)?
- A. Designed for single-user devices
 - B. Emphasises graphics and multimedia capabilities
 - C. Supports multiple concurrent users and resources sharing
 - D. Primarily used for gaming
- (2 marks)
10. Which of the following is a key component of Active Directory that allows user profiles and settings to follow users as they move between different computers in the network?
- A. Roaming Profile Server
 - B. File Profile Server
 - C. Print Profile Server
 - D. DNS Profile Server
- (2 marks)
11. When a file server role is deployed within an organisation, which of the following could present a challenge?
- A. Data storage optimisation
 - B. Data security and access control
 - C. Improved data sharing
 - D. Simplified data backup
- (2 marks)
12. In a Network Operating System, what is the primary goal of resource sharing?
- A. Enhancing graphics performance
 - B. Improving system security
 - C. Facilitating collaboration and data sharing
 - D. Running multiple gaming applications
- (2 marks)
13. Which of the following can be used to separate and filter network traffic based on routed protocol and port numbers?
- A. Switch
 - B. Router
 - C. Modem
 - D. Firewall
- (2 marks)
14. Users are able to interact with and run programs on their desktop or laptop computers thanks to desktop operating systems, which operate as a mediator between the computer's physical parts and software applications. Which of the following is **NOT** a typical function of a desktop operating system?
- A. Running web servers
 - B. Managing files and folders
 - C. Providing a graphical user interface
 - D. Running office productivity software
- (2 marks)
15. Which of the following can be a potential benefit of implementing a load balancing server role?
- A. Decreased network redundancy
 - B. Reduced data storage costs
 - C. Slower network performance
 - D. Improved server uptime and availability
- (2 marks)

16. Which of the following is a network tool that can verify a host's reachability and calculate the amount of time it takes for data to travel from its source to its destination and back?
- A. Ping
 - B. Cable tester
 - C. Protocol analyzer
 - D. DHCP server
- (2 marks)
17. Which of the following is **NOT** a key component virtualisation?
- A. Hypervisor
 - B. Host operating system
 - C. Cloud
 - D. Management Interface
- (2 marks)
18. Which of the following **BEST** describes the procedure of testing individual hardware or software components to make sure they work properly and adhere to predetermined standards?
- A. Integration testing
 - B. Component testing
 - C. End to end testing
 - D. Component unit
- (2 marks)
19. Which of the following is a feature that can be utilised in a Windows server environment to automate account management across a network of servers and workstations?
- A. Security policy
 - B. Group memberships
 - C. Lockout policy
 - D. Group policy
- (2 marks)
20. Which factor is important when selecting server hardware for a data-intensive application?
- A. Server processor speed
 - B. Server brand popularity
 - C. Server software version
 - D. Server vendor support
- (2 marks)
21. Which of the following is required in a Windows Server environment to connect network cables to network devices such as switches, routers, Network Interface Cards (NICs) and servers?
- A. USB
 - B. RJ-45
 - C. HDMI
 - D. VGA
- (2 marks)
22. Server acquisition involves careful consideration of various factors to ensure that the selected servers meet the business's needs and provide value for the investment. In server acquisition, what does "scalability" refer to?
- A. The server's ability to be compatible with other hardware
 - B. The server's storage capacity for data and applications
 - C. The server's processing capability of tasks given
 - D. The server's ability to handle increased workloads
- (2 marks)
23. Which factor is crucial when selecting server hardware for a high-availability environment?
- A. Redundancy and fault tolerance features
 - B. The server's primary storage capacity
 - C. The server's hardware portability
 - D. The server's secondary storage capacity
- (2 marks)
24. Within a networked environment, Active Directory performs a number of essential tasks. What comes first in the configuration of Active Directory?
- A. Installing a web server
 - B. Creating organisational units (OUs)
 - C. Installing a database server
 - D. Installing a domain controller
- (2 marks)

25. What is the primary function of a Domain Name System (DNS) server in a network?
- A. Assigning IP addresses to network devices
 - B. Providing email services
 - C. Translating domain names to IP addresses
 - D. Filtering web content
- (2 marks)
26. Which of the following is a crucial consideration when choosing server software?
- A. The software's compatibility with the hardware
 - B. The server's physical dimensions
 - C. The server's redundancy and reliability
 - D. The server's processing power
- (2 marks)
27. What does the term "disk formatting" mean in relation to data storage?
- A. Cleaning the physical surface of the disk
 - B. Preparing the disk for data storage by creating a file system
 - C. Defragmenting the disk to optimise the storage and retrieval of data
 - D. Encrypting the data on the disk for security purposes
- (2 marks)
28. What does Hyper-V used for in a server environment running Windows?
- A. High-performance gaming
 - B. For web hosting
 - C. For file sharing
 - D. For virtualisation
- (2 marks)
29. What is the purpose of granting "Permissions" in account management?
- A. To create user accounts
 - B. To verify user identity
 - C. To control access to resources
 - D. To edit user information
- (2 marks)
30. Which of the following offers enhanced security, effective storage management, and the capacity to manage enormous volumes and files, making it a crucial part of business and server settings?
- A. NTFS
 - B. HFS+
 - C. EXT4
 - D. FAT32
- (2 marks)
31. Which type of virtualisation enables the operation of several virtual machines (VMs), each running a different operating system on a single physical host?
- A. Emulation
 - B. Containers
 - C. Type 1 Hypervisor
 - D. Type 2 Hypervisor
- (2 marks)
32. What is the function of role-based access control in Windows Server?
- A. It controls the server's time settings
 - B. It assigns permissions based on user roles
 - C. It manages Active Directory services
 - D. It secures FTP services
- (2 marks)
33. Why are disk quotas used in data storage management?
- A. To limit the number of files on a disk
 - B. To restrict the types of files that can be stored on a disk
 - C. To automate disk defragmentation
 - D. To limit the amount of disk space a user can consume
- (2 marks)
34. Which of the following describes the essential element of the operating system that controls system resources, deals with hardware interfaces and acts as the basis for running software programs?
- A. Hypervisor
 - B. BIOS
 - C. Kernel
 - D. Container
- (2 marks)

35. In a windows server environment, what happens when a user exceeds their allocated disk quota?
- A. The user is unable to access any files on the disk
 - B. New files cannot be created, but existing files can still be accessed
 - C. The system automatically deletes the user's oldest files
 - D. The user is prompted to purchase additional disk space
- (2 marks)
36. What are snapshots' main purpose in Virtualisation Management (VM)?
- A. To create new VMs
 - B. To install software
 - C. To allocate more memory to a VM
 - D. To revert a VM to a previous state
- (2 marks)
37. Server configuration entails the process of setting up, customising and optimising a server to meet specific requirements and perform its intended functions effectively. What is a product key in server configuration?
- A. A unique identifier for the server hardware
 - B. A password to access the server remotely
 - C. A license key to activate the server's operating system
 - D. A network protocol used for server communication
- (2 marks)
38. Which of the following, when used as a network diagnostic tool, generates a list of every intermediary device that data packets pass through en route to their final destination?
- A. ipconfig
 - B. ping
 - C. traceroute
 - D. netstat
- (2 marks)
39. What is the recommended frequency for changing server passwords?
- A. Daily
 - B. Monthly
 - C. Weekly
 - D. As needed, based on security policies
- (2 marks)
40. What is the purpose of using a loopback plug in network testing?
- A. To measure network bandwidth and latency
 - B. To detect nearby wireless networks
 - C. To assess and resolve issues in network interfaces by emulating a network connection without directly linking to an external apparatus
 - D. To perform network scans for security purpose
- (2 marks)
41. Which of the following statement is **TRUE** on whether it is possible for two servers on the same network to share the same name?
- A. Yes, as long as they have different IP addresses
 - B. Yes, it doesn't matter if they have the same name
 - C. No, server names must be unique within a network
 - D. No, but it is not essential for server operations
- (2 marks)
42. What is the role of the Windows Server Update Services (WSUS) as used in a Windows Server environment?
- A. It centralises the management of Windows updates
 - B. It provides Domain Name System (DNS) services
 - C. It manages user accounts and group policies
 - D. It serves as a web server
- (2 marks)
43. In the context of server configuration, how best can you define the term protocols?
- A. Steps to be followed to accomplish specific tasks on a server
 - B. Rules and conventions that govern communication in a network
 - C. Security settings for server access
 - D. Passwords used to authenticate use
- (2 marks)
44. What command-line tool is used to display a computer's IP settings on a Windows server?
- A. traceroute
 - B. ping
 - C. ifconfig
 - D. ipconfig
- (2 marks)

45. In server configuration, what are ports used for?
A. They are used for identifying specific services and processes on a server
B. They are used for server used for virtualisation, install and configure
C. They are used for domain resolution and configuring domain settings
D. They are used for load balancing (2 marks)
46. What is a potential benefit of using server virtualisation technology?
A. Increased physical server count
B. Higher power
C. Enhanced resource utilisation
D. Decreased scalability (2 marks)
47. In the context of server operating systems, what does a server role entail?
A. A physical location where servers are stored
B. A specific function that a server performs in a network
C. The brand of the server's hardware
D. The server's IP address (2 marks)
48. Network security policies are a set of guidelines and rules that define how an organisation protects its computer systems, networks, and data from security threats and unauthorised access. Which one of the following windows components is used for network security policy?
A. Windows Defender
B. Windows Firewall
C. Windows Antivirus
D. Windows Security Center (2 marks)
49. Which of the following is a system monitoring tool that offers comprehensive data on the functionality and resource consumption of the computer, including information on CPU, memory, disk and network activity?
A. Event Viewer
B. Task Manager
C. Resource Monitor
D. Performance Monitor (2 marks)
50. Which of the following refers to the process of setting up and configuring windows server operating system on a computer or computing device?
A. Virtualisation
B. Installation
C. Fragmentation
D. Subnetting (2 marks)
-



DIPLOMA IN COMPUTER NETWORKS AND SYSTEMS ADMINISTRATION (DCNSA)

LEVEL II

WINDOWS SERVER ROLES AND FEATURES

TUESDAY: 22 August 2023. Morning Paper.

Time Allowed: 2 hours.

Answer ALL questions by indicating the letter (A, B, C or D) that represents the correct answer. This paper is made up of fifty (50) Multiple Choice Questions. Each question is allocated two (2) marks.

1. A server role is a set of software components that enable a server to perform a specific function for users and other computers in a network. Which server role is responsible for managing and controlling user access to network resources?
A. Database Server
B. File Server
C. Web Server
D. Domain Controller (2 marks)
2. The process of obtaining a server, including the purchase, delivery, and installation of the server is referred to as _____.
A. Server acquisition
B. Server procurement
C. Server delivery
D. Server distribution (2 marks)
3. Which of the following user account types in Windows Server has the highest level of privileges and can perform administrative tasks?
A. Power User
B. Standard User
C. Administrator
D. Guest User (2 marks)
4. State the name given to the practice of housing privately owned servers and networking equipment in a third-party data center facility which provides the necessary infrastructure, power, cooling, and security while the user maintains control over their hardware and software.
A. Colocation
B. PAAS
C. Hybrid
D. IAAS (2 marks)
5. What is the purpose of print queues in Windows Server printer management?
A. They manage the printer hardware
B. They provide a graphical interface for printer management
C. They establish network connections for printer sharing
D. They store the print jobs until they are printed (2 marks)
6. Which network testing technique involves measuring the time it takes for a packet to travel from the source to the destination and back?
A. Bandwidth testing
B. Latency testing
C. Throughput testing
D. Ping testing (2 marks)

7. Which component is responsible for managing the allocation of physical resources to virtual machines?
A. Guest OS
B. Application software
C. Hypervisor
D. BIOS (2 marks)
8. Why is considering management and administration important when selecting a network operating system?
A. It reduces network costs
B. It improves network performance
C. It enhances network security
D. It simplifies network troubleshooting (2 marks)
9. What is the purpose of an access control list (ACL)?
A. To encrypt a file or folder
B. To control who can access a file or folder
C. To compress a file or folder
D. To delete a file or folder (2 marks)
10. Which of the following hypervisors was developed by Microsoft to allow users to run multiple operating systems on a single physical server?
A. VMWare
B. Virtual Box
C. Hyper-V
D. KVM (2 marks)
11. What is the purpose of a user profile in Windows Server?
A. To store user-specific settings and preferences
B. To manage user permissions and access levels
C. To authenticate user credentials during logon
D. To track user login history and activity (2 marks)
12. Managing server rights and privileges is essential for ensuring security, controlling access and maintaining the integrity of server environment. Which privilege allows a user to create, modify, and delete files and folders on a server?
A. Read
B. Write
C. Execute
D. Copy (2 marks)
13. Which of the following is a **BEST** practice for Windows Server administration?
A. Creating and managing shared resources
B. Printer sharing
C. User authentication
D. Keeping the windows server up to date (2 marks)
14. What is the purpose of a print driver in Windows Server printer management?
A. It determines the printing permissions for users
B. It enables communication between the printer and the server
C. It controls the physical printing process
D. It manages the print spooler service (2 marks)
15. A metal frame or enclosure designed to secure house servers, network equipment, and other IT infrastructure components in a data center or server room is called _____.
A. Data center
B. Server room
C. Rack cabinet
D. Server farm (2 marks)
16. Which of the following tool is used in Window's server for monitoring and performance optimisation?
A. PowerShell
B. Event Viewer
C. Firewall
D. Active Directory (2 marks)

17. What is a snapshot in the context of Windows Server?
A. A system restore point
B. A backup of the entire server
C. A point-in-time copy of the server's data
D. A virtual machine template (2 marks)
18. Server roles are a set of software component that enables servers perform specific functions. Select the server role that is responsible for providing remote access to servers and other computers on a network.
A. Remote Desktop Services
B. HTTP server
C. Anydesk Software
D. Web server (2 marks)
19. Which of the following command is used to manage services and processes in Windows server environment?
A. defrag
B. diskpart
C. taskmgr
D. pathping (2 marks)
20. Web servers are used to host websites and deliver contents to clients over the internet. Which of the following is an example of a web server?
A. Apache Timcat
B. Apache HTTP Server
C. Apache Tomcat
D. Apache Spark (2 marks)
21. Which protocol is commonly used for network printing in Windows Server environments?
A. SNMP
B. TCP/IP
C. FTP
D. HTTP (2 marks)
22. Selecting a Network Operating System (NOS) can be a daunting task, as there are many factors to consider. Which of the following is the most important factor to consider when selecting a network operating system?
A. Security
B. Hardware compatibility
C. NOS Performance
D. Software compatibility (2 marks)
23. The delivery of computing services, such as servers, storage, and applications, over the internet is called _____.
A. Server virtualisation
B. Client-server model
C. Cloud computing
D. Distributed systems (2 marks)
24. The ability of a server or system to handle increasing workloads and accommodate growth in terms of users, data or traffic to meet the growing demand is known as _____.
A. Portability
B. Scalability
C. Optimisation
D. Compatibility (2 marks)
25. What is the purpose of conducting periodic security audits on organisation's servers?
A. To enhance resource utilisation
B. To optimise network infrastructure
C. To identify unauthorised access
D. To balance the load across servers (2 marks)

26. Which of the following is the default location for the Active Directory database?
A. C:\Windows\System32\NTDS
B. C:\Windows\System32\Config
C. C:\Windows\System32\Users
D. C:\Windows\System32\System (2 marks)
27. Which Windows Server feature allows administrators to automatically configure user accounts based on predefined templates?
A. User Account Control (UAC)
B. Group Policy
C. Active Directory Federation Services (ADFS)
D. Windows Firewall (2 marks)
28. Which Windows Server feature allows for the automatic deployment of operating systems to networked computers?
A. Remote Desktop Services
B. Group Policy
C. Windows Deployment Services
D. DHCP Server (2 marks)
29. Which of the following command is used to display protocol statistics and current TCP/IP connections using NetBIOS over TCP/IP in a Windows server?
A. netstat
B. nbstat
C. arp
D. nslookup (2 marks)
30. What is the term used for the process of creating a new instance of a virtual machine from a predefined template?
A. Provisioning
B. Cloning
C. Migration
D. Replication (2 marks)
31. Virtual machine migration is the process of moving a virtual machine from one host to another. The type of migration where a virtual machine is moved from one host to another while the virtual machine is running is called _____.
A. Real time migration
B. Hot migration
C. Cold migration
D. Live migration (2 marks)
32. Which of the following is **NOT** a built-in Windows user group?
A. Administrators
B. Editors
C. Users
D. Guests (2 marks)
33. Operating system is organised using the file system structure for organising and storing files on the storage device. Which of the following is the default file system for Windows server operating system?
A. FAT32
B. exFAT
C. ReFS
D. NTFS (2 marks)
34. What happens to the server's data when a snapshot is created?
A. The data is moved to a separate physical disk
B. The data is compressed and stored in a separate file
C. The data remains intact, and the snapshot references it
D. The data is backed up to an external storage device (2 marks)

35. Which of the following is **NOT** a task of managing and maintaining a Windows Server network?
- A. User authentication
 - B. Managing users and groups
 - C. Troubleshooting problems
 - D. Configuring the operating system
- (2 marks)
36. Which tool is used to monitor the performance and health of servers and network devices in a Windows environment?
- A. Active Directory Users and Computers
 - B. Task Manager
 - C. System Center Operations Manager
 - D. Event Viewer
- (2 marks)
37. Which of the following is a drawback of using virtual machines?
- A. Virtual machines can have a performance impact on the physical hardware they are running on
 - B. Virtual machine recovery is easy
 - C. Virtual machines can be more expensive than physical computers
 - D. Virtual machine uses hardware efficiently
- (2 marks)
38. User accounts and group accounts are two concepts commonly used in computer systems for managing access and permissions. What is the difference between a user account and a group account?
- A. A user account is used to access files and folders, while a group account is used to access a computer
 - B. A user account is used to access a computer, while a group account is used to access files and folders
 - C. There is no difference between a user account and a group account
 - D. A user account is used to access both a computer and files and folders, while a group account is only used to access files and folders
- (2 marks)
39. The small footprint server, designed for remote administration that targets data center and private cloud deployments is called _____.
- A. Cloud server
 - B. VMWare
 - C. Nano server
 - D. Virtual Machine
- (2 marks)
40. A network protocol analyser that captures and analyses network traffic in real-time and is used for troubleshooting network issues, analysing network protocols, and identifying security vulnerabilities is known as _____.
- A. Traceroute
 - B. Ping
 - C. Nmap
 - D. Wireshark
- (2 marks)
41. Which of the following is the correct procedure for changing the permissions on a file or folder in Windows?
- A. Right-click on the file or folder and select "Properties"
 - B. Click on the "Start" button and type "file permissions"
 - C. Open the file or folder properties and go to the "Security" tab
 - D. Click on the command prompt and type at "msinfo"
- (2 marks)
42. Which Windows utility allows for the management of user accounts and their associated permissions?
- A. Control Panel
 - B. Device Manager
 - C. Windows Explorer
 - D. Computer Management
- (2 marks)
43. The process of installing Windows Server, either on a new hardware or a virtual machine, without retaining the old operating system is called _____.
- A. Clean installation
 - B. Custom installation
 - C. Full installation
 - D. Guided installation
- (2 marks)

44. Which of the following firewall rules allows or denies traffic based on the source and destination IP addresses and ports?
A. Application-based rules
B. MAC-based rules
C. Content filtering rules
D. Port-based rules (2 marks)
45. The graphical tool that is used to manage disks and partitions in Windows, macOS, and Linux is known as _____.
A. DiskPart
B. GParted
C. CHKDSK
D. FDISK (2 marks)
46. The process of capturing and maintaining comprehensive records and information about the network infrastructure, configurations and procedures is known as _____.
A. Network analysis
B. Network documentation
C. Network storage
D. Service Legal Agreement (2 marks)
47. Which network testing technique involves sending a series of network packets to measure response time and reachability?
A. Load testing
B. Stress testing
C. Performance testing
D. Ping testing (2 marks)
48. What name is given to the technology that combines multiple physical disk drive components into one or more logical units for the purposes of data redundancy and performance?
A. Reliable Architecture for Integrated Datacenters
B. Redundant Array of Inexpensive Disks
C. Remote Access and Intrusion Detection
D. Rapid Application Interface Development (2 marks)
49. What is the main purpose of using snapshots in Windows Server?
A. To revert the server to a previous state if necessary
B. To provide a backup solution for the entire server
C. To create virtual machine templates for deployment
D. To enable faster file transfers over the network (2 marks)
50. Which of the following is **NOT** a valid account lockout policy setting in Windows Server?
A. Account lockout threshold
B. Account lockout duration
C. Account lockout reset frequency
D. Account lockout delay (2 marks)
-



DIPLOMA IN COMPUTER NETWORKS AND SYSTEMS ADMINISTRATION (DCNSA)

LEVEL II

WINDOWS SERVER ROLES AND FEATURES

TUESDAY: 25 April 2023. Morning Paper.

Time Allowed: 2 hours.

Answer ALL questions by indicating the letter (A, B, C or D) that represents the correct answer. This paper is made up of fifty (50) Multiple Choice Questions. Each question is allocated two (2) marks.

1. Windows server provides centralised management of computing resources such as computer accounts, resources and security. Which of the following services is provided by windows server?
 - A. Internet information services
 - B. Remote desktop services
 - C. File and storage services
 - D. Active directory services
2. Which of the following storage mechanism provides block-level access to storage resources used in enterprise environments with aim of improving storage utilisation?
 - A. Storage Area Network
 - B. Network-Attached Storage
 - C. Distributed File System
 - D. Cloud Storage
3. Which of the following explains the purpose of server clustering?
 - A. To improve server performance
 - B. To increase server reliability
 - C. To enhance server security
 - D. It does not provide users with higher availability
4. Remote Desktop Services (RDS) allow users to remotely access graphical desktops and Windows applications. Which of the following is **NOT** a service of RDS delivery?
 - A. Cost savings.
 - B. Operability.
 - C. Accounting
 - D. Security
5. A server is a computer program or device that provides a service to another computer program and its user, also known as the client. What is the difference between physical and virtual server?
 - A. Virtual servers are real, while physical servers are simulated
 - B. Physical servers are real, while virtual servers are simulated
 - C. Physical servers are faster, while virtual servers are slower
 - D. Virtual servers are faster, while physical servers are slower
6. What security measure should be taken when creating a server account?
 - A. Strong password
 - B. Two-factor authentication
 - C. Regular backups
 - D. Firewall protection

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7. The ability of Active Directory Domain Service to integrate with other Microsoft technologies making it easier to manage mixed environments is referred to as?
- A. Reliability
 - B. Scalability
 - C. Interoperability
 - D. Portability
8. IT Personnel main role is to design, install, program and manage computer hardware and software. Who among the following is responsible for managing?
- A. Server accounts end user
 - B. Network engineer
 - C. IT support team
 - D. System administrator
9. What is DNS in the context of servers?
- A. A server that provides a secure, encrypted connection between clients and the internet
 - B. A system for converting human-readable domain names into IP addresses
 - C. A system for assigning IP addresses to servers
 - D. A system for routing network traffic
10. A network consists of two or more computers that are linked in order to share resources (such as printers and CDs), exchange files, or allow electronic communications. What is the purpose of a server in a network?
- A. To manage user access
 - B. To store data
 - C. To run applications
 - D. To act as a gateway to the internet
11. Virtualisation relies on software to simulate hardware functionality and create a virtual computer system. Which technology allows creation and running of virtual machines (VMs) to enable multiple operating systems to run on a single physical server?
- A. Hyper-V
 - B. KVM
 - C. Red Hat
 - D. VMware
12. Which of the following windows PowerShell command is used to display path to the current working directory?
- A. dir
 - B. mkdir
 - C. ls
 - D. pwd
13. Windows service is a computer program that operates in the background. Which of the following is a start-up type service?
- A. Running
 - B. Stopped
 - C. Automatic
 - D. Stand-by
14. Which of the following is a lightweight command that is used in the Windows PowerShell environment to perform a single specific function such as coping files and changing directories?
- A. Scripts
 - B. Cmdlets
 - C. Codes
 - D. Object
15. The server technology that deals with the distribution of network traffic across multiple servers is known as?
- A. Latency
 - B. Virtualisation
 - C. Jitter
 - D. Load balancing

16. Which of the following connections establishes a secure, encrypted connection between a computer and the internet, providing a private tunnel for data and communications?
- A. Wired connection
 - B. Wireless connection
 - C. Virtual Private Network
 - D. Cellular connections
17. A network of servers that work together to distribute content to users based on their geographical location is termed as?
- A. Content delivery network
 - B. Virtual Private Network server
 - C. Proxy server
 - D. Domain Name System
18. The technology of creating multiple virtual servers on a single physical server, allowing multiple applications to run on a single machine to improve resource utilisation is known as?
- A. Application virtualisation
 - B. Server virtualisation
 - C. Network virtualisation
 - D. Storage virtualisation
19. Which of the following server automatically assign IP addresses to clients on a network, making it easier to manage and maintain network resources.
- A. DNS server
 - B. Proxy server
 - C. DHCP server
 - D. IIS server
20. A server technology used for improving data storage reliability and performance by combining multiple disk drives into a single logical unit is known as?
- A. RAID
 - B. Virtualisation
 - C. Cloning
 - D. Partitioning
21. Which of the following **BEST** describes the use of server operating system?
- A. To provide a user interface for users to interact with the server
 - B. To provide a platform for running server software and managing hardware resources
 - C. To provide a platform for hosting websites and web applications
 - D. None of the above
22. Windows Server supports enterprise-level management, data storage, applications, and communications. Which statement describes a cluster in the context of servers?
- A. A group of servers that work together to provide a service
 - B. A single server with multiple processing units
 - C. A group of servers that compete for resources
 - D. A group of server that serves web pages to clients
23. A container object within a domain that you can use to consolidate users, computers, groups, and other objects is known as?
- A. Docker
 - B. Object
 - C. Organisation Unit (OU)
 - D. Group Policy Object (GPO)
24. Which of the following statements **BEST** illustrates the use of hypervisor in the context of servers?
- A. A piece of software that provides load balancing
 - B. A piece of software that provides firewall functionality for security purpose
 - C. A server technology that deals with the distribution of network traffic
 - D. A piece of software enabling virtualization by creating and managing VMs

25. Which feature of Windows server allows administrators to centrally manage the configuration of user and computer accounts in an active directory environment
- A. Remote Desktop Services
 - B. Group Policy
 - C. Performance monitor
 - D. Failover clustering
26. Which of the following is **NOT** a graphical user interface network testing tool?
- A. Wireshark
 - B. OpManager
 - C. Nagios
 - D. Dig
27. Mr. Juma wanted to have a collection of resources, such as computers and users to be managed by a single instance. Which of the following can be used to accomplish this?
- A. Active directory
 - B. Resources
 - C. Domain
 - D. Group
28. Which of the following PowerShell command is used to add a user?
- A. Useradd
 - B. Adduser
 - C. Set-ADUser
 - D. New-ADUser
29. Server maintenance refers to the various tasks and procedures performed to keep a server operating optimally and securely. Which of the following is NOT a server maintenance task?
- A. Performing patches and fixes
 - B. Creating back-up
 - C. Creating and managing OUs
 - D. Performing disk cleanup
30. Which of the following is a server computer in active directory domain that performs centralised authentication and authorisation functions, such as verifying user credentials and controlling access to resources.
- A. Application controller
 - B. Domain Controller
 - C. Application Servers
 - D. Virtualisation Servers
31. Hypertext Transfer Protocol Secure (HTTPS) is used for secure web browsing and web services. What is the port number associated with HTTPS application layer service?
- A. Port 443
 - B. Port 80
 - C. Port 8080
 - D. Port 21
32. In a Windows server environment, various rights and privileges can be assigned to users and groups to control their access to resources and functionality. Which of the following is **NOT** a restricted service?
- A. Take ownership of files and directories
 - B. Adjust memory quotas for a process
 - C. Load and unload device drivers
 - D. Read and execute access to files and directories
33. A security device that monitors and controls incoming and outgoing network traffic based on predetermined security rules is Known as?
- A. Router
 - B. Domain controller
 - C. Firewall
 - D. Switch

34. Which of the following is a windows server database file that stores information about user accounts, passwords, and security settings?
- A. Security Account Manager
 - B. Active Directory Domain System
 - C. ActiveX Controls
 - D. ActiveX Data Object
35. A point-in-time copy of the data stored on the server used for various purposes, such as backup and recovery, disaster recovery, testing, and data analysis is called?
- A. Log
 - B. Snapshot
 - C. Add-in
 - D. Journal
36. Network testing tools can be used to diagnose and troubleshoot network issues. State the command used to displays information about network connections, routing tables, and network statistics?
- A. ping
 - B. traceroute
 - C. ipconfig
 - D. netstat
37. Ports are virtual places within an operating system where network connections start and end. Which of the following is the numerical identifier assigned to a network service that runs on a server?
- A. Unique identifier
 - B. IP address
 - C. A server port
 - D. Proxy address
38. Each node on a computer network is uniquely identified through an IP address. What is the name given to the IP component that identifies an individual server on some specific network?
- A. Network ID
 - B. Host ID
 - C. Subnet mask
 - D. Octet
39. Which of the following statements is **INCORRECT** about the virtual machine.
- A. It is a software simulation of a physical machine
 - B. They are the heart of the operating system
 - C. They can run more than one operating system on a single physical computer
 - D. VMware is an example of process virtual machine
40. The type of a user account in windows server which has a collections of user accounts that can be managed as a single entity is known as?
- A. Group Accounts
 - B. Domain Accounts
 - C. Virtual Accounts
 - D. Local User Account
41. The level of importance assigned to a process by the server operating system is referred to as?
- A. Process scheduling
 - B. Process thread
 - C. Zombie
 - D. Process priority
42. Which of the following is a facility used to house computer systems and related components, such as telecommunications and storage systems
- A. Hypervisor
 - B. Cloud
 - C. Data center
 - D. Server rack

43. What is the default subnet mask for a Class C IP address?
- A. 255.0.0.0
 - B. 255.255.255.0
 - C. 255.255.0.0
 - D. 255.255.255.248
44. The technology that enables organisations to provide their employees with remote access to virtual desktops that run on servers within the data center is known as?
- A. Virtual Desktop Infrastructure
 - B. Remote Desktop Connection
 - C. Remote Method Invocation
 - D. Virtualisation Technology
45. Which of the following file system is used for storing, organising, and finding files on a hard disk efficiently with features such as attribute-level access control lists for objects?
- A. FAT
 - B. FAT32
 - C. VFAT
 - D. NTFS
46. Which statements **BEST** describes the purpose of assigning an IP address to a server?
- A. To protect the server from unauthorised access
 - B. To store and transfer files on the server or remote computers
 - C. To allow communication between the server and other devices on the network
 - D. To provide user authentication and authorisation
47. Which system tool is used to view, update server device hardware settings and driver software?
- A. Event viewer
 - B. WMI control
 - C. Device Performance and health
 - D. Device manager
48. _____ is the user's explicit individual rights and the groups to which the user belongs to.
- A. Access token
 - B. Object
 - C. Node
 - D. Right and permissions
49. The security measure implemented to prevent unauthorised access to systems or networks that involves locking the account for a certain period of time after a specified number of failed login attempts is known as?
- A. Password expiry
 - B. Lockout policy
 - C. Authentication
 - D. Authorisation
50. Which of the following statements **BEST** describes the function of a Network Operating System (NOS)?
- A. To manage hardware resources
 - B. To provide user authentication and authorisation
 - C. To manage network resources and provide communication between network devices
 - D. To manage storage and retrieval of data
-



DIPLOMA IN COMPUTER NETWORKS AND SYSTEMS ADMINISTRATION (DCNSA)

LEVEL II

WINDOWS SERVER ROLES AND FEATURES

TUESDAY: 6 December 2022. Morning Paper.

Time Allowed: 2 hours.

Answer ALL questions by indicating the letter (A, B, C or D) that represents the correct answer. This paper is made up of fifty (50) Multiple Choice Questions. Each question is allocated two (2) marks.

1. Different servers provide different services. Servers are dedicated, meaning they are created to do one thing and cannot change. Which of the following is **NOT** a type of a server?
 - A. File server
 - B. Desktop server
 - C. Print server
 - D. Web server(2 marks)
2. Windows Deployment Service is a server role that gives administrators the ability to deploy Windows operating systems remotely. Which one of the following is **NOT** an advantage of Windows Deployment Services?
 - A. WDS-based installation is easy and efficient due to network-based installation
 - B. WDS-based installation reduces the cost and complexity of installation
 - C. There is no support for mixed environments deployment
 - D. There is support for both server and client computers installation(2 marks)
3. Which of the following is the current trend for acquiring web pages' storage space?
 - A. Donation
 - B. Buying disks
 - C. Leasing
 - D. Recycling disks(2 marks)
4. Choose the server resource that requires redundancy for better performance.
 - A. Network interface
 - B. Screen
 - C. Mouse
 - D. Keyboard(2 marks)
5. What factor is **NOT** considered when selecting a server class hardware for a big organisation?
 - A. Compatibility
 - B. Speed
 - C. Warranty
 - D. User friendliness(2 marks)
6. Which network transmission would be the **LEAST** suitable to use in a server connection?
 - A. Fiber
 - B. Coaxial cable
 - C. Twisted pair cable
 - D. Blue tooth(2 marks)

7. When SCSI disks are used in high end PCs and servers, the controller maintains a list of _____ on the disk that is initialized during _____ formatting which sets aside spare sectors not visible to the operating system. (2 marks)
- A. Destroyed blocks, high level
 - B. Bad blocks, partitioning
 - C. Bad blocks, low level
 - D. Destroyed blocks, partitioning
8. Securing a firewall is the vital first step to ensure only authorized administrators have access to it. This can be achieved through the carrying out the following **EXCEPT**? (2 marks)
- A. Update with the latest firmware
 - B. Deleting, disabling, or renaming default accounts and changing default passwords
 - C. Enabling the Simple Network Management Protocol (SNMP), which collects and organizes information about devices on IP networks.
 - D. Restricting outgoing and incoming network traffic for specific applications or the Transmission Control Protocol (TCP)
9. Which of the following is always unique to a computer regardless of time and place? (2 marks)
- A. MAC address
 - B. IP address
 - C. Serial number
 - D. Computer name
10. Which of the following is **NOT** a benefit of disk defragmentation in a server? (2 marks)
- A. Improves overall server performance
 - B. Reduces chances of losing files
 - C. Improves disk Speed
 - D. Makes a disk last longer
11. In networking, a protocol is a standardized set of rules for formatting and processing data. Protocols enable computers to communicate with one another. Choose a protocol that is used to secure servers in a network. (2 marks)
- A. TCP/IP
 - B. SSL
 - C. UDP
 - D. SMB
12. The server protocol ports are also divided into TCP ports and UDP ports. Which one of the following is **NOT** a type of a TCP port? (2 marks)
- A. FTP
 - B. TELNET
 - C. DNS
 - D. SMTP
13. Which of the following is **NOT** a type of a disk quota? (2 marks)
- A. Access
 - B. Usage
 - C. Block
 - D. File
14. Which of the following statements is **TRUE** about user authentication? (2 marks)
- A. Ability to perform a task as a user
 - B. Authentication is a privilege
 - C. It deters a user from doing some actions
 - D. Checks whether one is what he claims to be.
15. Which of the following action is carried out by a privileged user during printer management? (2 marks)
- A. Printing
 - B. Installation
 - C. Loading paper
 - D. Repairing a printer

16. Which of the following actions constitutes system recovery?
- A. Copying files
 - B. Restoring a system
 - C. Copying changes not in a full backup
 - D. Removing old unwanted files.
- (2 marks)
17. A quick “picture” of a server including its files, software and settings at a particular point in time that is instant, and preserve a point in time state of the server is called?
- A. Rollback
 - B. Backup
 - C. Snapshot
 - D. Virtual machine
- (2 marks)
18. A virtual machine can be viewed as?
- A. Client computer
 - B. The main network server
 - C. A mirror copy of a server
 - D. Implementation of a hardware in software
- (2 marks)
19. Which of the following is the use of a network tester tool?
- A. Check computers in a network
 - B. Check if a cable is correctly clipped
 - C. Check if a network card is working properly
 - D. Test storage spaces
- (2 marks)
20. The following are some of the advantages of Hyper-V in Windows Server **EXCEPT**?
- A. It simplifies the procedures involved in setting up test labs.
 - B. You can reduce the number of physical servers that must be deployed in the server room, thereby saving space and power requirements.
 - C. Security is reduced because server virtualization increases exposure of virtual servers that contain sensitive information.
 - D. Hyper-V leverages other server components such as failover clustering to improve server availability.
- (2 marks)
21. Jacob, a system admin used the command `arp -a` to manage a network on a server. What is the purpose of the command?
- A. To show computers physical address
 - B. Renew all computer IP address
 - C. To send a giant packet in the network
 - D. To restart the network
- (2 marks)
22. Which statement below **BEST** describes a system virtual machine?
- A. A machine with only a CPU virtualized
 - B. The main machine hosting the virtual machine
 - C. A machine with only the memory virtualized
 - D. A machine fully virtualized on a physical machine
- (2 marks)
23. You have a Server named server1. Which cmdlet should you use to identify whether the DNS Server role is installed on server1?
- A. Find-ServerPackage
 - B. Get-Package
 - C. Find-Package
 - D. Get-WindowsOptionalFeature
- (2 marks)
24. Which tool is recommended for changing the server local settings?
- A. Powershell
 - B. CMD
 - C. Notepad
 - D. Server admin GUI tool
- (2 marks)

25. Which of the following ports is associated with HTTP?
A. 25
B. 53
C. 80
D. 44 (2 marks)
26. Which of the following is **NOT** a function of a firewall in a network?
A. Substitute active directory
B. Control access of institution website
C. Prevents leakage of internal information
D. Strengthen network security (2 marks)
27. Disk partitioning can be referred to as?
A. Backing up the disk
B. Protecting the disk
C. Preparing a disk for use
D. Creating of logical drives in one disk (2 marks)
28. The server administrator in your organization would like to show all the processes running, which windows command will he use?
A. W32tm
B. Tasklist
C. Dir
D. Show run (2 marks)
29. Dorcas wants to publish a printer to an Active Directory. Where would she click in order to accomplish this task?
A. The Sharing tab
B. The Advanced tab
C. The Device Settings tab
D. The Printing Preferences button (2 marks)
30. Alice is working on a Windows Server 2016 Datacenter Server system. She needs to view which roles and services are installed on the machine. Which PowerShell cmdlet can she use to see this?
A. Get-event
B. New-event
C. Trace-command
D. Get-WindowsFeature (2 marks)
31. Which of the following is **NOT** an important server feature for all servers?
A. Large memory
B. Fast CPU
C. Fast network
D. Huge secondary storage (2 marks)
32. Chose a server feature which an administrator can manage.
A. Memory speed
B. Folders access
C. Every network conditions
D. Storage access speed (2 marks)
33. The Sylos.com network consists of a single domain named Sylos.com. All servers on the Sylos.com network have Windows Server 2019 installed. You are running a training exercise for junior administrators and you are currently discussing printer pooling. Which of the following is TRUE with regards to printer pooling?
A. Printers in a pool must be of the same model, and use the same printer driver.
B. Each printer in the pool must have a different printer driver.
C. Printer ports used in the pool must be of the same type.
D. The types of printer ports used in the pool must be mixed. (2 marks)
34. A common server licenses in windows servers is?
A. Freeware
B. Shareware
C. Proprietary
D. Open source (2 marks)

35. A system administrator wants to change the memory of a virtual machine that is currently powered up. What does he need to do?
- A. Shut down the virtual machine, use the virtual machine's settings to change the memory, and start it again.
 - B. Use the virtual machine's settings to change the memory.
 - C. Pause the virtual machine, use the virtual machine's settings to change the memory, and resume it.
 - D. Save the virtual machine, use the virtual machine's settings to change the memory, and resume it. (2 marks)
36. Which of the following is **NOT** a common device in servers?
- A. Network port
 - B. Graphics processing unit
 - C. Mouse
 - D. Keyboard (2 marks)
37. Which of the following is **NOT** an installation method?
- A. Unattended
 - B. Attended
 - C. Silent
 - D. Core (2 marks)
38. A junior administrator in your company needs to back up the existing data on a computer before she can install a new application. She also needs to ensure that you are able to recover individual user files that are replaced or deleted during the installation. What should she do?
- A. Create a System Restore point.
 - B. Perform an Automated System Recovery (ASR) backup and restore.
 - C. In the Windows Server Backup utility, click the Backup Once link.
 - D. In the Backup and Restore Center window, click the Back Up Computer button. (2 marks)
39. What is a guest machine in virtualization?
- A. A computer that hosts Guest
 - B. A Virtual Machine
 - C. A Virtual Machine that hosts other Virtual Machines
 - D. A temporary Virtual Machine (2 marks)
40. Which of the following is the **CORRECT** definition of a Windows Domain?
- A. Computers managed by a Domain Controller
 - B. Printers managed by a single server
 - C. A group of Windows Servers
 - D. A group of users (2 marks)
41. Which one of the following is **NOT** a valid Active Directory object?
- A. User Account
 - B. File Share
 - C. Group Policy Object
 - D. Group (2 marks)
42. Hyper-V lets you run multiple operating systems as virtual machines on Windows. What is the first software to load at boot time for a machine running Hyper-V?
- A. Windows operating system
 - B. Hypervisor
 - C. Both the OS and hypervisor simultaneously
 - D. Virtual machines and applications (2 marks)
43. What IP address should one put as the default gateway of the server?
- A. The IP address of the router
 - B. The IP address of the DNS server
 - C. You should not specify this option
 - D. The IP address of the Windows Domain (2 marks)

44. Choose the statement that **BEST** defines a DHCP exclusion?
- A. A single IP address that is not to be supplied to clients by DHCP
 - B. A range of IP addresses that are not to be supplied to clients by DHCP
 - C. A number of static IP addresses that cannot be supplied to clients by DHCP
 - D. A single static IP address that cannot be supplied to clients by DHCP
- (2 marks)
45. What type of IP address is needed for a device to be visible on the Internet?
- A. Public
 - B. Binary
 - C. Class B
 - D. Subnetted
- (2 marks)
46. A restriction that prevents any executable from running except for those that have been specifically allowed by an administrator in a server is called?
- A. Basic user
 - B. Disallowed
 - C. Power-user
 - D. Unrestricted
- (2 marks)
47. The process of granting users access to files in a server is called?
- A. Authentication
 - B. Authorisation
 - C. Allocation
 - D. Assignment
- (2 marks)
48. Which of the following is **NOT** a type of DNS record?
- A. Cname record
 - B. A record
 - C. AAAA record
 - D. Database records
- (2 marks)
49. How many DHCP servers can you have on a network?
- A. One
 - B. Two
 - C. Three
 - D. Four
- (2 marks)
50. The fastest RAID in a server is?
- A. RAID 2
 - B. RAID 5
 - C. RAID 1
 - D. RAID 0
- (2 marks)
-



DIPLOMA IN COMPUTER NETWORKS AND SYSTEM ADMINISTRATION (DCNSA)

LEVEL II

WINDOWS SERVER ROLES AND FEATURES

TUESDAY: 2 August 2022. Morning paper.

Time Allowed: 2 hours.

This paper is made up of fifty (50) Multiple Choice Questions. Answer ALL questions by indicating the letter (A, B, C or D) that represents the correct answer. Each question is allocated two (2) marks.

1. Which of the following is **NOT** one of the four divisions or container structures in active directory? (2 marks)
 - A. Webs
 - B. Workgroup
 - C. Domain
 - D. Sites
2. _____ Is the processing which is carried out by the use of remote terminal processors. (2 marks)
 - A. Digital processing
 - B. Logical processing
 - C. Teleprocessing
 - D. Manual processing
3. How many types of groups are available in Active Directory? (2 marks)
 - A. 2
 - B. 3
 - C. 4
 - D. 5
4. Transmission in which all bits are sent at the same time for each character is called? (2 marks)
 - A. Local transmission
 - B. Parallel transmission
 - C. Wide transmission
 - D. Serial transmission
5. What is the unit of measuring the speed of transmitted data? (2 marks)
 - A. Baud
 - B. Band
 - C. Hertz
 - D. Seconds
6. What type of hard disk formatting creates FAT file system? (2 marks)
 - A. Low level
 - B. High level
 - C. Maximum level
 - D. Minimum level
7. Which tab option must be enabled or disabled to specify a printer share name and accessibility? (2 marks)
 - A. General
 - B. Sharing
 - C. Location
 - D. Advanced

8. What command can you type to perform a system state back up? (2 marks)
- A. Wbadmin start statebackup
 - B. Wbadmin start sysstatebackup
 - C. Wbadmin start systemstatebackup
 - D. Wbadmin begin systemstatebackup
9. Which one of the following ports is NOT used by active directory? (2 marks)
- A. Port 135 TCP, UDP
 - B. Port 137 TCP, UDP
 - C. Port 636 TCP
 - D. Port 203
10. Which of the following is the minimum processor specification needed for windows server 2016? (2 marks)
- A. x32 or x64 processor running at 1.4 Ghz
 - B. x64 processor running at 1.4 Ghz
 - C. x64 dual core processor running at 1.4 Ghz
 - D. x64 processor running at 1.8 Ghz
11. What is the other name for the system virtual machine? (2 marks)
- A. Hardware virtual machine
 - B. Software virtual machine
 - C. Real virtual machine
 - D. Active real machine
12. Which of the following functions is not allowed for a standard user account? (2 marks)
- A. Install a printer
 - B. Install network drivers
 - C. Configure WPA keys
 - D. Modify the desktop settings
13. What is the CIDR equivalent for 255.255.255.254? (2 marks)
- A. /24
 - B. /25
 - C. /26
 - D. /27
14. What is a Guest as used in virtualization? (2 marks)
- A. A computer that hosts Guest VMs
 - B. A Virtual Machine is often referred to as a Guest
 - C. A VM that hosts other VMs
 - D. A temporary VM that must eventually leave its host
15. What subnet mask should you use for a 200 computers network using static IP address' on the 192.168.10.0 network? (2 marks)
- A. 255.0.0.0
 - B. 255.255.0.0
 - C. 255.255.255.0
 - D. 255.255.255.255
16. Which of the following information can be configured on a VPN client so that it can access VPN server? (2 marks)
- A. Lookup address
 - B. Mac address
 - C. Domain name
 - D. Connection address
17. Which command is used to purge the DNS resolver cache? (2 marks)
- A. Ipconfig /flush
 - B. Ipconfig /flushdns
 - C. Ping /flush
 - D. Grope /flushdns

18. What program or tool is the easiest to use when administering the server such as editing its host name, domain membership, firewall, networking and settings?
- A. Command prompt
 - B. Windows PowerShell
 - C. RSOP.msc
 - D. Server manager
19. A type of backup in SQL server done only to the data that has changed since the last full backup is called?
- A. Cold backup
 - B. Full Backup
 - C. Online backup
 - D. Differential backup
20. Which windows role is installed by default?
- A. Active Directory Domain Services
 - B. File and Storage Services
 - C. DHCP Server
 - D. PowerShell
21. What filename extension is applied by default to custom consoles that are created for the MMC? (2 marks)
- A. .mmc
 - B. .msc
 - C. .con
 - D. .mcn
22. Which of the following contains the controls used to modify DNS name caching? (2marks)
- A. The Forwarders tab of a server's properties sheet
 - B. The State of Authority (SOA) tab of a zone's Properties sheet
 - C. The Root Hints tab of a server's Properties sheet
 - D. The New Zone Wizard
23. Which of the following command line options will enable you to check the status of the local Netbios name cache and verify the MAC address of the local computer?
- A. Enter **nbtstat -c name**, where **name** is Netbios name computer
 - B. Enter **ipconfig -all /netstat**
 - C. Enter **ipconfig /nbtstat name**, where **name** is the Netbios **name** of your computer
 - D. Enter **nbtstst -a name**, where **name** is the Netbios name of your computer
24. Which of the following can be a member of a domain but works without active directory?
- A. Standalone CA
 - B. Enterprise CA
 - C. Root CA from the network
 - D. Standard user
25. You are planning an IP addressing strategy for intranet servers on your Windows server 2003, network. You want to ensure that these servers cannot be directly accessed from the internet in order to maintain security. Which address range can you use to meet this objective? (2marks)
- A. 172.32.0.1 through 172.168.255.254
 - B. 10.255.255.0 through 10.255.255.255
 - C. 192.168.0.0 through 192.168.18.254
 - D. 192.162.0.1 through 192.168.0.0
26. How many CGI applications are supported by IIS 6 by default concurrently? (2marks)
- A. 2
 - B. 4
 - C. 6
 - D. 7

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27. Which users are able to manage profiles on windows 7 computers? (2 marks)
- A. The user who uses the profile
 - B. Server operators
 - C. Power users
 - D. Administrators
28. You want to monitor the CPU, memory and disk usage on your computer to ensure that there are no bottlenecks. Which MMC snap-in would you use to access system Monitor? (2 marks)
- A. System monitor
 - B. Reliability Monitor
 - C. ActiveX control
 - D. Performance logs and alerts
29. Which RAID uses disk striping, whereby blocks of data are divided up into stripes with each stripe written to a different disk.
- A. RAID 0 AND RAID 5
 - B. RAID 1 AND RAID 5
 - C. RAID 2 AND RAID 5
 - D. RAID 1 AND RAID 3
30. If you wanted to require that a user enter an administrator password to perform administrative task, what type of user account should you create for the user?
- A. Administrator user account
 - B. Standard user account
 - C. Authenticated user account
 - D. Power user account
31. You have installed a clean installation of windows on your computer, you want an image of the new installation to use as a basis for remote installs. What windows utility should you use to accomplish this? (2 marks)
- A. WDS
 - B. Windows sim
 - C. ImageX
 - D. Sysprep
32. You have a user with limited vision, which accessibility utility is used to read aloud screen text, such as text in dialogue boxes, menus and buttons?
- A. Read aloud
 - B. Orator
 - C. Dialogue Manager
 - D. Narrator
33. You have scheduled a task scheduler but it doesn't run when it is supposed to run, you have already verified that the task scheduler is running, what else should you check? (2marks)
- A. Verify that the task has been configured to run in unattended mode
 - B. Make sure the user who is scheduled to run the task has the appropriate permissions
 - C. Make sure that the time is properly synchronised on the computer
 - D. Verify that the process manager task is running
34. You want to configure a utility that will verify whether a website is known to be fraudulent, which utility should you configure?
- A. Pop-up blocker
 - B. RSS Reader
 - C. Phishing filter
 - D. Add-on manager
35. To protect your windows machine from spyware infection what windows utility should you configure? (2 marks)
- A. Windows Defender
 - B. Phishing filter
 - C. Pop-up blocker
 - D. Windows OneCare

36. What happens when a computer enters sleep mode after a specified period? (2 marks)
- A. The computer is shut down gracefully
 - B. Data will be saved to the hard disk
 - C. The monitor and hard disk will be turned off, but the computer will remain in an active state
 - D. The user session will not be available when you resume activity on the computer
37. You are using internet explorer to access several RSS feeds that you subscribe to, one of the feeds stores only the 10 most recent updates. You want to ensure that the last 100 updates are stored. What should you do?
- A. Configure the RSS feed to automatically download attached files
 - B. Modify the schedule so that the RSS feed is updated more than ones a day
 - C. Turn on feed reading view in IE
 - D. Modify the archive setting so that the last 100 items are stored
38. What step is required by nearly every server role immediately after installation? (2 marks)
- A. Pre-deployment configuration
 - B. Powering on the new server role
 - C. Restarting the new server role
 - D. Post deployment configuration
39. A _____ is used by a print server as a buffer to hold data before it is sent to the printer. (2marks)
- A. queue
 - B. spool
 - C. hub
 - D. medium
40. You are setting up a printer pool on a computer running Windows Server 2012 R2. The printer pool contains three identical print devices. You open the Properties dialog box for the printer and select the Enable Printer Pooling option on the Ports tab. Which of the following steps must you perform next? (2 marks)
- A. Configure the LPT1 port to support three printers.
 - B. Select or create the ports mapped to the three printers.
 - C. On the Device Settings tab, configure the installable options to support two additional print devices.
 - D. On the Advanced tab, configure the priority for each print device so that printing is distributed among the three print devices.
41. Which of the following types of server virtualisation provides the best performance for high-traffic servers in production environments? (2marks)
- A. Type I virtualization
 - B. Type II virtualization
 - C. Presentation virtualization
 - D. RemoteApp
42. Which of the following Hyper-V features is not required to make it possible for a VM to function with a minimum RAM value that is lower than the startup RAM value? (2 marks)
- A. Smart paging
 - B. Dynamic Memory
 - C. Memory Weight
 - D. Guest Integration Services
43. When you install the Hyper-V role on a server running Windows Server 2012 R2, the instance of the OS on which you installed the role is converted to what system element? (2 marks)
- A. The hypervisor
 - B. The Virtual Machine Monitor
 - C. The parent partition
 - D. A child partition
44. What is the name of the database that keeps track of a huge amount of stuff and gives us a centralized way to manage all our network machine, users, and resources?
- A. Forest
 - B. Active Directory
 - C. Domain controller
 - D. Tree

45. Which of the following is **NOT** a part of active directory structure?
- A. Organisational Unit
 - B. Group policy
 - C. Domain
 - D. Tree
46. A domain controller provides _____ to ensure that no two domains are created with the same name in the same forest.
- A. User account provisioning
 - B. Resource access processing
 - C. Database Replication
 - D. Domain Naming Master
47. Which RAID should you apply if you have a machine with two hard disk and you add an extra 100 GB hard disk for a specific Client-Server application to run on, because the application gets very slow returning query data? You want to have the fastest possible access for the Client-Server App to the HDD's. (2 marks)
- A. RAID0
 - B. RAID1
 - C. RAID5
 - D. RAID2
48. How can you assign an application to one processor exclusively? (2 marks)
- A. Right click on application executable, select properties and select assign processor
 - B. Right click on application process in Task Manager, select Set Affinity, and select the appropriate processor
 - C. Open Task Manager, chose options from task bar, select processor and assign processes to appropriate processor
 - D. Open Task Manager, chose Performance, chose view all processors, assign processes to appropriate processor
49. How can you recreate the PTR record in your Windows 2000 DNS server from you Windows 2000 client? (2 marks)
- A. Run ipconfig /registerdns from the client
 - B. Run ipconfig all /registerdns from the DNS server
 - C. Start the DNS Dynamic service on your client computer
 - D. Create a host file with the #DYNAMIC command on the client computer
50. Which of this is NOT a good trick for improving performance? (2 marks)
- A. Minimise FTP user isolation.
 - B. Use ISAPI extensions instead of ISAPI filters.
 - C. Set up remote virtual directories.
 - D. Keep websites and FTP servers on different machines.
-