9628-04 Level 4 Diploma in Network Systems and Architecture (for the Level 4 Network Engineer Apprenticeship)
9628-404 Network Systems and Architecture

Sample question paper

Duration: 45 minutes

Candidate's name:

Candidate's enrolment number:

Centre name:

Centre number:

Date:

1   Which one of the following components has the **least** impact on the performance of a database server?

a.   CPU.
b.   Memory.
c.   SATA bus.
d.   Hard disk I/O.

2   Which one of the following has the **greatest** impact when optimising an application server?

a.   Hard disk size.
b.   Display adapter type.
c.   CMOS capacity.
d.   Multiple CPU cores.

3   Which one of the following is the **most** important to consider when building a test server that can be booted up to run multiple operating systems?

a.   Memory allocation.
b.   File formatting.
c.   CPU allocation.
d.   Disk partitioning.

4   Which one of the following is of **critical** importance when upgrading a server?

a.   CPU check.
b.   Verified backup.
c.   Memory check.
d.   Incremental backup.

5   Why would NAT be configured on a server?

a.   To aggregate IP addresses.
b.   To automatically allocate IP addresses.
c.   To map internal to external IP addresses.
d.   To translate domains to IP addresses.

6   Which one of the following ICMP utilities can be used to check that a remote server is reachable from a workstation?

a.   tcpdump.
b.   netstat.
c.   iostat.
d.   ping.

7   Which one of the following is a kernel based HyperVisor?

a.   HyperVisor Type 1.
b.   HyperVisor Type 2.
c.   Bare-metal.
d.   Hardware virtualisation engine.

8   Which one of the following is a HyperVisor feature that allows a virtual machine (VM) to use more memory space than the physical host has available?

a.   Memory overcommit.
b.   Dynamic memory.
c.   Memory compression.
d.   Transparent memory page sharing.

9   Which one of the following is an enhancement of virtualisation technology in which a guest OS is recompiled prior to installation inside a virtual machine?

a.   Full virtualisation.
b.   Null virtualisation.
c.   Partial virtualisation.
d.   Para virtualisation.

10   Which one of the following is a disadvantage of partitioned machines running on HyperVisor Type 1?

a.   Limited multi-user access.
b.   A single point of failure.
c.   Limited multi-OS access.
d.   Running parallel CPU processes.

11   Which one of the following components requires configuring when implementing virtualisation?

a.   User access.
b.   Kernel execution.
c.   Storage quota.
d.   CPU utilisation.

12   Which one of the following is a feature of centralised administration as a shared network service?

a.   Enables users to set up duplicate services as they require.
b.   Improves efficiency by using economies of scale.
c.   Allows peer to peer networking.
d.   Gives users full local control.

13 Which one of the following is the **best** disaster recovery strategy for a high availability server to mitigate a fire involving the server?

a. Geographically dispersed failover servers.
b. Data backups stored at the same location.
c. Geographically dispersed data backups.
d. Failover server at the same location.

14 Which one of the following file systems is supported by **all** major platforms?

a. NTFS
b. FAT
c. HDFS
d. APFS

15 Which one of the following is the DNS record that stores the IPv6 address?

a. A
b. AAAA
c. LOC
d. CAA

16 Which one of the following is the **main** reason for using middleware?

a. To conduct data replication between systems.
b. To provide an interface between two different applications.
c. To conduct remote procedure calls between systems.
d. To provide transaction processing between two different applications.

17 Which one of the following is the **main** benefit of server workload balancing?

a. To increase connectivity.
b. To optimise response time.
c. To increase configuration settings.
d. To optimise resource utilisation.

18 Which one of the following is a drawback of server workload balancing?

a. Increased latency.
b. Increased overload.
c. Increased response time.
d. Increased points of failure.

19 Which one of the following server types utilises workload balancing?

a. NAT server.
b. DHCP server.
c. Web server.
d. Active Directory server.

20 Which one of the following is the **most** appropriate offline storage solution for retaining data that is no longer used by an organisation?

a. Archival storage.
b. Network attached storage.
c. Storage area network.
d. Public cloud based storage.

21 Which one of the following cloud based technologies can be used by an organisation to allow interaction between internal and external individuals?

a. Community.
b. Private.
c. Public.
d. Hybrid.

22 Which one of the following storage protocols requires IP tunnelling to be used on a TCP/IP network?

a. iSCSI
b. FCP
c. NFS
d. SMB

23 Which one of the following RAID configurations can continue working if one disk drive fails?

a. RAID 0
b. RAID 1
c. RAID 2
d. RAID 5

24 Which one of the following is **most** likely to cause a complete mechanical hard disk failure?

a. Power outage.
b. Data fragmentation.
c. Rough handling.
d. Corrupted software.

25 Which one of the following results in client workstations being allocated an APIPA address?

    a. NAT misconfiguration.
    b. DHCP misconfiguration.
    c. DNS misconfiguration.
    d. NTFS misconfiguration.

26 Which one of the following situations is **most** likely to cause a complete system and services failure across a MAN?

    a. UPS failure.
    b. Site-wide power loss.
    c. Air conditioning failure.
    d. City-wide power loss.

27 Which one of the following is the **most** likely consequence of system failure in a financial organisation?

    a. Damage to reputation.
    b. Reduction in staff.
    c. Infrastructure damage.
    d. Ceases trading.

28 When replacing an entire system, which one of the following is the **most** effective measure for ensuring data availability?

    a. Change management.
    b. Phased migration.
    c. Software testing.
    d. Risk register maintenance.

29 Why should redundancy be built into networks?

    a. To reduce system complexity.
    b. To simplify identifying issues.
    c. To avoid a single point of failure.
    d. To minimise system errors.

30 Which one of the following is a suitable solution for ensuring **immediate** access to data in the event of system failure?

    a. A hot site.
    b. Archival storage.
    c. A warm site.
    d. Daily backups.

NOW GO BACK AND CHECK YOUR WORK

*   IMPORTANT -
    Are the details at the top of the answer sheet correct?