

**9628-06 Level 3 Certificate in Networking and Architecture (for the  
Level 3 Infrastructure Technician Apprenticeship)**  
9628-806 Networking and Architecture

Sample question paper

Duration: 75 minutes

Candidate's name:

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Candidate's enrolment number:

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Centre name:

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Centre number:

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Date:

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1 Identify the component in the image below.



- a. RJ-45
- b. RJ-11
- c. LC
- d. ST

2 Identify the component in the image below.



- a. BNC
- b. USB
- c. LC
- d. ST

3 What is the **maximum** recommended length for a CAT 6 Cable when used as a 100BASE-T?

- a. 55 metres.
- b. 90 metres.
- c. 100 metres.
- d. 110 metres.

4 Which type of data cable is the **most** secure from electronic interference?

- a. CAT 5.
- b. CAT 5e.
- c. Plenum coated.
- d. Fibre Optic.

5 Which one of the following characteristics is correct about a CAT 5 cable?

- a. Speed of 10 GB/s at 55 metres.
- b. Uses a non-standard terminator.
- c. Reduced crosstalk due to construction.
- d. Electromagnetically shielded.

6 A Campus would utilise which one of the following antennas to link all of its sites?

- a. Parabolic.
- b. Omni-directional.
- c. Point to Multipoint.
- d. Multipoint to Multipoint.

7 Which one of the following wireless standards uses the 5GHz band for data rates up to 54Mbps?

- a. 802.11a
- b. 802.11b
- c. 802.11g
- d. 802.11n

8 Which one of the following would **most** likely be the cause of users being able to connect to a newly installed WAP but being unable to reach the internet?

- a. The device signal strength has been degraded.
- b. An incorrect subnet mask has been used on the WAP.
- c. Users have selected the wrong encryption type.
- d. The signal strength on the WAP is low and packets are dropping.

9 Which technology is described as providing long range connectivity?

- a. NFC.
- b. RFID.
- c. WiMAX.
- d. Bluetooth.

- 10 Which one of the following technologies uses inductance to provide power in a device?
- NFC.
  - RFID.
  - WiMAX.
  - Bluetooth.
- 11 Which of these wire encryption standards is the **least** secure?
- WEP.
  - WEP2.
  - WPA.
  - WPA2.
- 12 Which command line tool would be used to identify open ports and running services on a host?
- Ping.
  - Netstat.
  - Tracert.
  - Ifconfig.
- 13 Which type of wireless site survey (RF Survey) is used to model the characteristics of a wireless network using simulation tools?
- Active.
  - Passive.
  - Predictive.
  - Static.
- 14 Which tool should be used to locate a hidden non-fibre network cable within a wall?
- Multi-meter.
  - Cable Tester.
  - Toner Probe.
  - Cable Certifier.
- 15 Which one of the following utilities would be used to identify file fragmentation?
- Protocol analyser.
  - Scandisk.
  - Memtest.
  - Process monitor.
- 16 Which one of the following will enable the total number of ICMP packets received to be viewed?
- Netstat -s.
  - Netstat -r.
  - Netstat -n.
  - Netstat -u.
- 17 Which one of the following is a command line packet sniffer?
- Netstat.
  - lostat.
  - TCPdump.
  - Vmstat.
- 18 Which one of the following Windows tools allows you to identify stopped network services?
- Task Manager.
  - Perfmon.
  - Sysmon.
  - Activity Monitor.
- 19 Which one of the following tools would allow you to record actions for use in security incident detection?
- Task Manager.
  - Perfmon.
  - Sysmon.
  - Tracert.
- 20 Which one of the following would be used to specify tasks to be completed in a repair facility?
- Fault Log.
  - Asset Log.
  - Worksheet.
  - Acceptance Test.
- 21 Which one of the following would be used to determine the suitability of a software application?
- Fault Log.
  - Asset Log.
  - Worksheet.
  - Acceptance Test.

- 22 What would be an appropriate response time in an SLA for a Technical Services Team to a failure in an online banking system?
- 15-30 minutes.
  - 1-2 hours.
  - Same day.
  - Next day.
- 23 Which type of maintenance is associated with distributing a critical security patch after users have been compromised?
- Physical.
  - Pro-Active.
  - Reactive.
  - Corrective.
- 24 Which type of maintenance can be ascribed to a technical services team which uses the Mean Time Between Failures (MTBF) to schedule a program for equipment replacement?
- Physical.
  - Pro-Active.
  - Reactive.
  - Corrective.
- 25 Which one of the following would be the **best** solution to improve the processing capabilities of a database server?
- Additional 16 GB RAM.
  - Upgrade to faster processor.
  - Increase to 1 TB storage.
  - Install large capacity SSD.
- 26 Which one of the following is the **most** important factor to be considered when purchasing new additional hardware to a current network?
- Ease of installation.
  - Known maintenance costs.
  - Two year replacement warranty.
  - Compatibility with existing systems.
- 27 Which one of the following is the **best** option to improve signal strength across the property for a customer having issues with the signal strength on their wireless network?
- Install a high gain antenna.
  - Run a CAT 5e cable to all of the rooms that have poor signal strength.
  - Install a wireless extender.
  - Install a second wired router in the far end of the property.
- 28 A USB device is plugged into a MS Windows computer. A message is displayed that the device is installed but may not work properly. Which of the following is the **most** likely cause of the message?
- The device needs a firmware update.
  - The system needs an updated driver installed.
  - The plugged in device is too slow for the USB port speed.
  - The device is incompatible with the installed version of Windows.
- 29 Which type of driver is required when installing a new scanner on a MS Windows based system?
- SURGE.
  - TWAIN.
  - Graphics.
  - Bridge.
- 30 A previously functioning MS Windows PC is unable to boot to the operating system. Which one of the following is the **most** likely cause?
- Graphics card failure.
  - Keyboard failure.
  - Network card incorrectly configured.
  - A misconfigured BIOS.
- 31 Which one of the following provides the **most** secure method to authenticate users?
- Biometric scanner.
  - Token device.
  - Two factor authentication.
  - Smart card.

- 32 Which one of the following can be considered a physical security method?
- Locked room.
  - Password.
  - Retinal scanner.
  - CCTV.
- 33 Which one of the following can be considered a Biometric security method?
- Secure environment.
  - Complex password.
  - Fingerprint scanner.
  - Token device.
- 34 Which one of the following **best** describes the term 'middleware'?
- A software package that provides backups for company data.
  - A hardware system that provides a fall over system.
  - A software package that connects two otherwise separate applications.
  - A hardware system that provides network security across the company.
- 35 Which one of the following is an essential feature of 'cloud services'?
- Complex deployment.
  - Scalability.
  - Employability.
  - Localised services.
- 36 Which one of the following **best** describes how networking infrastructure benefits IT business systems?
- It allows more emails.
  - It allows sharing of resources.
  - It allows standalone systems.
  - It allows monitoring of working hours.
- 37 Which one of the following **best** describes how authentication contributes to IT business systems?
- Only allows valid users to access the system.
  - Only allows logon between recognised hours.
  - Provides resource sharing across the system.
  - Provides timely access to remote services.
- 38 Which one of the following is the basic unit for measuring bandwidth in data communication?
- Megabytes per second.
  - Bytes per second.
  - Bits per second.
  - Terabits per second.
- 39 What is the hexadecimal representation of the following binary number?
- 1111
- F
  - 01
  - A
  - 11
- 40 Which one is the following IPv4 addresses is known as the loopback address?
- 10.0.0.1
  - 192.168.0.1
  - 127.0.0.1
  - 169.254.0.1
- 41 At which layer of the TCP/IP 4 layer model are datagrams forwarded between hosts across the network?
- Application.
  - Transport.
  - Internet.
  - Network Access.
- 42 The IP and ICMP protocols operate at which layer of the 7 layer OSI model?
- Physical.
  - Data Link.
  - Network.
  - Transport.

- 43 Which one of the following **best** describes the use of the 'Netmask'?
- A unique device identifier.
  - A default pathway.
  - A network identifier.
  - A network security option.
- 44 Which one of the following features of a wireless router maps a private IP address to a public IP address?
- DHCP.
  - NAT.
  - APIPA.
  - Netmask.
- 45 What is a DNS server used for?
- Resolving host names.
  - Resolving asset locations.
  - Resolving data errors.
  - Resolving gateway addresses.
- 46 A DNS client would be registered with the DNS server using which one of the following record types?
- 'MX' record.
  - 'NS' record.
  - 'A' record.
  - 'CNAME' record.
- 47 In networking, what does a VLAN provide?
- Security by segregation.
  - Bandwidth by separation.
  - Immunity to external access.
  - Unlimited devices by virtualisation.
- 48 What is the default port for the SSH protocol?
- 22
  - 23
  - 123
  - 4066
- 49 Which one of the following would prevent users from visiting social media sites?
- PAT.
  - NAT.
  - Implicit Deny.
  - Content Filter.
- 50 To ensure users are logging into their systems using the **least** privilege method, which of the following should be done?
- Allow users to determine their needs and access to resources.
  - Enforce a group policy with the minimum amount of account restrictions.
  - Employ a BIOS password that differs from the domain password.
  - Enforce a policy that allocates permissions based strictly on the user's job role.

### **NOW GO BACK AND CHECK YOUR WORK**

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

