

BCS Level 4 Certificate in Network Systems and Architecture QAN 603/0547/2

Specimen Paper A

Record your surname / last / family name and initials on the answer sheet.

Sample paper only 20 multiple-choice questions – 1 mark awarded to each question.
Mark only one answer to each question. There are no trick questions.

A number of possible answers are given for each question, indicated by either **A. B. C. or D.** Your answers should be clearly indicated on the answer sheet.

Pass mark is 13/20.

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- 1 Which **two** ports does SMB use?
- A 20 and 21.
 - B 133 and 443.
 - C 139 and 445.
 - D 139 and 1096.
- 2 A customer is unable to access website. An engineer discovers that their computer can ping a web IP address but not www.google.com. What **SHOULD** be investigated next?
- A The computer's ARP table.
 - B The physical network cable.
 - C The wireless SSID
 - D The computer's DNS settings.
- 3 Which of the following is a benefit of using dynamic routing protocols?
- A Adapts to changes in the network state automatically.
 - B Adapts to security threats found on the network.
 - C Can reboot routers when the network load is too heavy.
 - D Uses the same pre-defined route for redundancy.
- 4 A Linux device does not boot. The primary partition has lost the boot flag. Which application would be used to repair this fault?
- A Disk manager.
 - B F10 BIOS setup.
 - C Device manager.
 - D Fdisk.
- 5 Which of the following is **MOST LIKELY** to reduce data loss from a cloud storage failure?
- A Using a single service provider.
 - B Using multiple data centres.
 - C Encrypting data.
 - D Having good cloud security.

- 6 Which **KEY** function of business would employee record management be used in?
- A Finance.
 - B HR.
 - C Marketing.
 - D Sales.
- 7 The LEDs on the ports at both ends of a wired link between a server and a switch appear to be correct and the link is working, but its performance is very slow. What **COULD** be a cause of this?
- A The switch port is set to reject broadcast packets.
 - B The patch cable is broken and should be replaced.
 - C There is a duplex mismatch between the switch and sever network cards.
 - D The server has not authenticated correctly in the switch's ARP table.
- 8 What functions does a DNS server perform?
- A Returns IP address for a given system name.
 - B Returns system name for a given MAC address.
 - C Allows access to resources without knowing the server name.
 - D Provides dynamic TCP/IP addresses to clients.
- 9 Which of the following is a **KEY** feature of middleware?
- A Creates a portable GUI.
 - B Manages system monitoring.
 - C Coordinates processes across systems.
 - D Coordinates disaster recovery.
- 10 A mail server is not receiving external mail. Which DNS record **SHOULD** be checked?
- A PTR.
 - B CNAME.
 - C A.
 - D MX.

- 11 Excessive latency creates bottlenecks in a network, this can lead to a reduction of effective bandwidth. Which of the following is a sign of an overloaded network device?
- A Loss of packets.
 - B High throughput.
 - C Low far-end crosstalk.
 - D Low near-end crosstalk.
- 12 If a server room AC fails, which components within the computer will **MOST LIKELY** be affected and fail **first**?
- A CPU.
 - B Hard drives.
 - C DVD drives.
 - D Graphics card.
- 13 What type of cloud service would a hosted email service be?
- A IAAS.
 - B PAAS.
 - C SAAS.
 - D XAAS.
- 14 Which of the following can cause CPU failure?
- A Heatsink failure.
 - B Northside bus failure.
 - C Southside bus failure.
 - D VGA failure.

- 15** How does a stateful inspection firewall know that a packet belongs to a valid session?
- A** The firewall inspects the packet to see what IP address it has come from and the port that it is communicating through.
 - B** The firewall inspects the packet to see what connections have been opened from the inside of the network to the Internet.
 - C** The firewall inspects the packet to determine which domain it has come from.
 - D** The firewall inspects the packet to determine the data link information of the connection.
- 16** What is the **KEY** function of type 1 hypervisor?
- A** Acts as the operating system and shares physical resources to virtual machines.
 - B** Uses the installed operating system to share physical resources to virtual machines.
 - C** Acts as a virtual machine to share physical resources to the operating system.
 - D** Uses the virtual machine's installed operating system to share physical resources.
- 17** A server that is described as a tower has which of the following characteristics?
- A** A system made of blades each acting as a single server system.
 - B** A system that can be stacked on top of each other in a rack.
 - C** A system that runs virtual machines in a rack.
 - D** A free standing system requiring no support of any kind.
- 18** Which of the following is a cause and effect of a malware infection?
- A** Weak passwords enabling a DDOS attack.
 - B** Patched vulnerabilities on a server allowing installation of ransomware.
 - C** Unpatched vulnerabilities on a server allowing installation of a crypto virus that encrypts all files.
 - D** Enabling outbound http traffic on a firewall enabling remote installation of spyware.

- 19 A Windows update has taken place and the sound has stopped working on a user's device. An engineer has checked that the latest drivers are installed. After a restart the sound still does not work. What further step **SHOULD** solve the problem?
- A Download the latest video drivers and install them as they have audio drivers.
 - B Roll back the update and ignore the constant update attempts.
 - C Change the sound card for a more up-to-date card.
 - D Use a USB headset as this doesn't use the on-board sound card.
- 20 Which of the following is the strongest wireless encryption method?
- A WPA2.
 - B WPA.
 - C WEP.
 - D WAP.

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