

**T Level Technical Qualification in Digital Support Services
(603/6901/2)****Route Core and Pathway (Paper B)**Paper number: **P002267**Time allowed: **2 hours 30 minutes**Assessment date: **Wednesday 13 December 2023**Time: **1:00pm – 3:30pm****Student instructions**

- Use black ink.
- Fill in the boxes at the bottom of this page.
- Answer **all** questions.
- Read each question carefully.
- You **must** write your responses in the spaces provided. There may be more space than you need.
- You may do rough work in this answer book. Cross through any work you do not wish to be marked.
- If you use a supplementary answer booklet, you must add your student name, student number and provider number to the front cover of the booklet. Insert your supplementary answer booklet inside this question paper at the end of your exam.

Student information

- The marks available for each question are shown in brackets. This is to help you decide how long to spend on each question.
- The maximum mark for this paper is 131 (including 6 for the quality of written communication (QWC) and use of specialist terminology).
- In questions **25** and **34**, you will be assessed on the QWC and use of specialist terminology.
- You may use a calculator.

Do not turn over until the invigilator tells you to do so.**Please complete / check your details below**

Student Name:

Provider Name:

Student Number:

Provider Number:



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P002267

Section A: Digital Support Services pathway

This section is worth 25 marks.

Answer **all** questions in the spaces provided.

- 1 Which **one** of the following describes any activity requiring the use of force by a person to lift, lower, push, pull or carry a person or an object?

[1 mark]

- A Customer service
- B Manual handling
- C Project management
- D Working at height

Answer _____

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2 Mia has seen a job vacancy for a service desk technician. The role requires providing 1st line digital support to customers via phone, email and live chat.

(a) Identify **two** key skills that would be included in the job description. **[2 marks]**

(b) Explain why **one** of the identified skills would be required for the service desk technician role. **[2 marks]**

3 Oceanside Pass is a travel and tourism platform as a service (PaaS).

Oceanside Pass has a knowledge base to help it reduce their customer support emails and calls by 30%.

Explain **one** way updating and maintaining a knowledge base will help Oceanside Pass achieve its goal of reducing customer support emails and calls by 30%. **[2 marks]**



4 Officeel provide virtual office solutions to remote business owners. They are looking to expand their services and are keen to hear their customers' feedback and ideas.

To help gather this information, Officeel have asked their customers to complete a survey which uses an open questioning method.

(a) Identify **two** types of communication formats Officeel can use to share their survey results.

[2 marks]

(b) Explain **one** reason why open questioning can benefit Officeel when surveying their customers.

[2 marks]



5 A telecommunications company has scheduled some essential maintenance and there will be interruption to the service it provides.

The company needs to communicate this information to their customers.

Explain **one** reason why the communication format must be considered by the telecommunications company when communicating with their customers.

[2 marks]

6 A customer is in the middle of an important secure booking with a new, high-profile client and their software has frozen. The customer urgently contacts the technical support team who provide remote support.

Explain **one** benefit of remote technical support being offered to the customer.

[2 marks]



7 Jack is the owner of a local bookstore. He received an email telling him he was behind with a tax payment and that he needed to click on a link to update his details. He did attempt this but encountered some problems.

When launching the system this morning, Jack encountered some faults and problems. He noticed that the system is running very slow and is unresponsive. He is now worried that his system might have been compromised as he uses this system for all his business operations and customer tracking.

(a) Identify **two** fault analysis tools Jack may have used to identify the faults and problems he encountered.

[2 marks]

(b) Explain **one** requirement for external reporting of faults and problem resolution that will ensure Jack's compliance with relevant legislation, regulation and external standards.

[2 marks]



8 A website hosting a company's service desk receives an incident from a customer reporting that its e-commerce website is failing to load and is unavailable. This is a widespread issue with a financial impact.

As part of its incident management process, which follows a structured workflow, the hosting company logs the incident, along with the following information:

- incident category: outage
- incident prioritisation: severity level red.

Assess how prioritising and categorising incidents impacts the website hosting company.

[3 marks]

Please turn over for the next question.



9 Six Logistics, a transport and logistics company, requires its helpdesk teams to complete customer service training. The teams are responsible for managing all customer service requests within the company.

Six Logistics has decided the training will be pre-recorded e-learning in place of in-person training.

Assess the impact to Six Logistics and its helpdesk teams of using pre-recorded e-learning modules.

[3 marks]



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Section B: Tools and testing

This section is worth 20 marks.
Answer **all** questions in the spaces provided.

10 State **two** purposes of testing digital components. **[2 marks]**

11 State **two** reasons for using black box testing. **[2 marks]**

Please turn over for the next question.



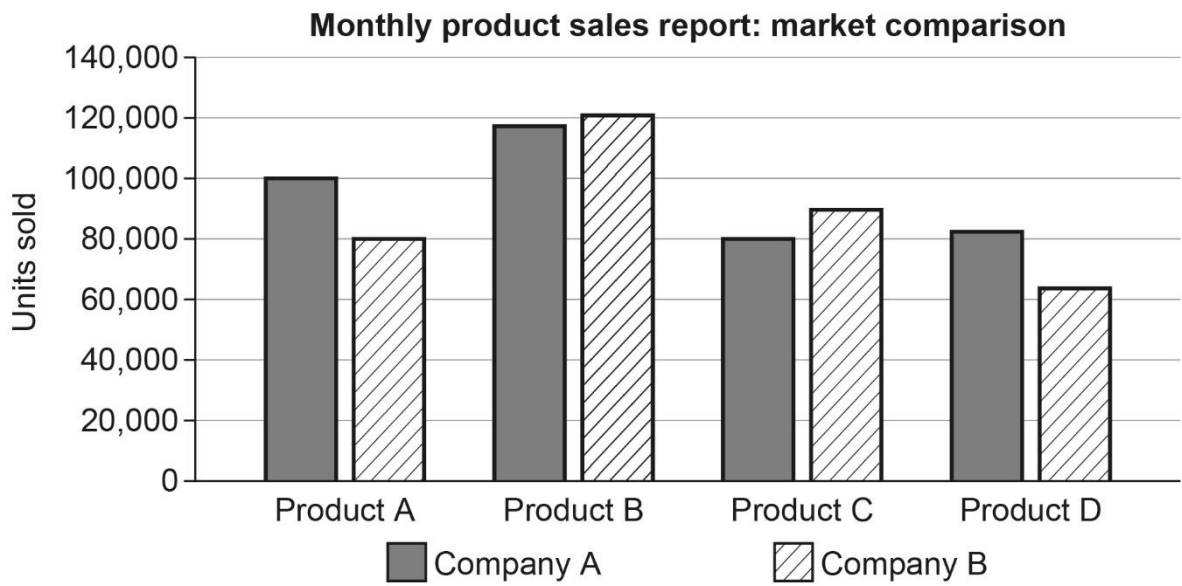
12 Chloe is project managing the development of a new product. There are several internal and external stakeholders involved in the development of the new product. Chloe needs to keep all stakeholders informed of the development progress and the anticipated delivery timescales.

(a) Identify **two** collaborative communication tools and technologies Chloe can use throughout the product development. **[2 marks]**

(b) Explain **one** project management tool Chloe can use to help her manage the development of the new product. **[2 marks]**



Figure 1



The sales manager for **Company A** presents this month's product sales information and shows a market comparison with **Company B**.

Describe **one** way the graph in **Figure 1** could be used to present sales figures and market comparisons which would help the sales manager.

[2 marks]

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14 Highway 19 is an application development company that is planning to incorporate penetration testing as part of its technical security assurance process.

Explain **one** reason why it is important that Highway 19 performs penetration testing.

[2 marks]

15 Oscar is a digital marketing manager for an online personal training website. He is implementing a marketing strategy to help his company achieve its strategic goals. Oscar creates and oversees all the marketing campaigns.

Explain **one** marketing analytics tool that would help Oscar evaluate his marketing campaigns.

[2 marks]



16 A digital product development company is performing some usability testing on a new app it is launching.

The usability testing is specifically focusing on ensuring there are no pain points with the new app.

The usability testing will focus on the following areas:

- content
- navigation
- error messages.

Assess how usability testing of the new app may affect user satisfaction.

[3 marks]

Please turn over for the next question.



17

A software sales company has offered a prospective customer a product demo presentation of its supply chain management software called Syna Supply.

Its product demos usually take 30 minutes and cover all aspects of Syna Supply.

Assess the benefits to the prospective customer of receiving a product demo presentation.

[3 marks]

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Section C: Security and legislation

This section is worth 37 marks, plus 3 marks for QWC and use of specialist terminology. Answer **all** questions in the spaces provided.

18 Which **one** of the following options below does the abbreviation CIA stand for? **[1 mark]**

- A** Communication, Information, Accessibility
- B** Communication, Internet, Accessibility
- C** Confidentiality, Integrity, Availability
- D** Confidentiality, Internal, Availability

Answer _____

19 Identify **two** key features of the Computer Misuse Act 1990. **[2 marks]**



20 Isaac is starting a course at college and is setting up his new eLibrary account. Isaac's account password has been highlighted as weak.

(a) Give **two** consequences of Isaac having a weak password.

[2 marks]

(b) Explain **one** way in which Isaac can strengthen his eLibrary account password to ensure it is more secure.

[2 marks]



21 AllNineteen has received new desks and chairs for their team. To comply with the Health and Safety (Display Screen Equipment) Regulations 1992, the company is providing some health and safety training and information for all its display screen equipment users. This includes those users with both fixed workstations in their offices and remote workers.

Explain **two** ways in which non-adherence to the legislation could negatively impact AllNineteen’s team members.

[4 marks]

Please turn over for the next question.



22 Lily is experiencing some issues with her computer which is preventing her from joining an online debate with her classmates using a browser-based virtual meeting tool. When she tries to join the debate, the browser just keeps opening pop-up windows informing her that she has won a prize.

She installs anti-virus software which detects she has adware on her computer.

(a) State **one** way that anti-virus software could protect Lily's computer from future attacks.

[1 mark]

(b) Explain **two** signs adware has infected Lily's computer, preventing her from joining the online debate.

[4 marks]



23 Tanveer is a small accountancy firm with 35 employees. The owner is worried that their digital systems are vulnerable as they lack the security infrastructure needed to protect the data that they store, access and share.

To help Tanveer learn more about the risk mitigation controls to prevent threats to the business’s digital systems, they recently gained the National Cyber Security Centre’s (NCSC’s) Cyber Essentials certification.

Assess the importance of Cyber Essentials to the business.

[3 marks]

Please turn over for the next question.



Section D: Data and digital analysis

This section is worth 43 marks, plus 3 marks for QWC and use of specialist terminology. Answer **all** questions in the spaces provided.

26 Identify **two** business resource considerations for data entry and maintenance. **[2 marks]**

27 A company has a large volume of inactive subscribers in its mailing list.

The company has conducted competitor research and analysis and now has a range of competitor data available to them to help it re-engage with its inactive subscribers.

(a) Identify **two** other sources of external data that may support the company's research and analysis. **[2 marks]**

(b) Explain **one** benefit to the company of using competitor data. **[2 marks]**

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28 A media producer has a large volume of unstructured media files such as audio, image and video that they want to store. They regularly create new media files. The media producer also regularly searches for recordings using the date when the files were created.

(a) Identify **two** cloud storage options that could be used by the media producer for their unstructured media files.

[2 marks]

(b) Explain **two** impacts to the media producer of using cloud storage.

[4 marks]



29 Gallery Bee is an independent contemporary art and design gallery. It is creating a digital archive to capture, store and make their collections available online.

The gallery is exploring how to model their collections' data in a logical structure that will support their digitisation project.

(a) State **two** data models that can be used by Gallery Bee to logically structure its collections' data.

[2 marks]

(b) Explain how **one** of the stated data models can be used to represent a logical structure for Gallery Bee's digital archive of its collections.

[2 marks]



30 A large distribution warehouse is designing and implementing an automated fire detection system.

The fire detection system comprises smoke detectors and cameras that will automatically detect fire in real-time. In the event a fire is detected, the system will raise an alarm by notifying the relevant fire safety personnel.

Explain **two** tools for problem solving and algorithm design that could be used by the distribution warehouse when designing and implementing the automated fire detection system.

[4 marks]

Please turn over for the next question.



31 A local hospital is improving the efficiency and security of its staff only car park.

Only vehicles registered to members of the hospital staff can enter, park and leave the staff car park.

The hospital has installed barrier access which is controlled by an automatic number plate recognition (ANPR) system with cameras placed at the car park's entrance and exit points to ensure car park rules are enforced 24/7.

Assess how the action of pattern recognition will ensure the enforcement of car park rules, in relation to the ANPR system the hospital's staff only car park has installed.

[3 marks]



32 Sebastian is teaching an online course and his learners have been working on a research assignment.

Students were asked to submit their assignments using the e-learning platform. The deadline for all learners was yesterday at 11.59 pm.

One learner has tried to submit their assessment after the deadline at 2.35 pm today, and they receive an error message which states:

‘You are unable to submit your assignment because your assignment deadline has passed.’

Evaluate the problem the learner is encountering in relation to the computational thinking processes that have been applied to the e-learning platform.

[4 marks]



Figure 2

Step 1 of 2
Email Account Settings
User information
Your Name:
Email Address:
Login information
User Name:
Password:
 Remember password

Step 2 of 2
Test account settings
We recommend that you test your account settings to ensure that the email account details you have entered are correct.

Ayesha is setting up her own business selling handmade personalised tote bags. She is going to sell her products through a global online marketplace.

She is trying to set up her business email account.

Assess the characteristics an algorithm possesses that Ayesha is interacting with to complete the task of setting up her business email account.

[4 marks]

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Owner: Head of Assessment Design

To be completed by the examiner			
Question	Mark	Question	Mark
1		18	
2 (a)		19	
2 (b)		20 (a)	
3		20 (b)	
4 (a)		21	
4 (b)		22 (a)	
5		22 (b)	
6		23	
7 (a)		24	
7 (b)		25	
8		26	
9		27 (a)	
10		27 (b)	
11		28 (a)	
12 (a)		28 (b)	
12 (b)		29 (a)	
13		29 (b)	
14		30	
15		31	
16		32	
17		33	
		34	
		TOTAL MARK	

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