



Please check the examination details below before entering your candidate information

Candidate surname

Other names

Centre Number

Learner ID

LL-

T Level Technical Qualification in Digital Production, Design and Development (Level 3)**Friday 12 May 2023**

Morning (Time: 2 hours 30 minutes)

Paper
reference**19537****Core: Examination**
PAPER 2: The Business Environment**You do not need any other materials.**

Total Marks

Instructions

- Use **black** ink or a ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and Pearson learner ID.
- There are two sections in this question paper. Answer **all** questions in Section A and Section B.
- Answer the questions in the spaces provided
– *there may be more space than you need.*

Information

- The total mark for this paper is 100.
- The marks for **each** question are shown in brackets
– *use this as a guide to how much time to spend on each question.*

Advice

- Read each question carefully before you start to answer it.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ►

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SECTION A

Answer ALL questions. Write your answers in the spaces provided.

- 1 (a) Data transfer over a network makes use of communication protocols.

Complete the table to show which layer of the four-layer TCP/IP model performs **each** function.

(2)

Function		Layer
Allows programs being used by the user to access network services.	→	
Decides which physical path the data should take.	→	

- (b) Give **two** business information tools that can be used to support businesses.

(2)

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(Total for Question 1 = 4 marks)



- 2 (a) A digital system is being developed that will be used in doctors' surgeries to aid them in prescribing medicines.

Explain **two** ways that the design of the user interface would take into consideration the characteristics of the end users.

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(b) Describe how the relationship between confidentiality and integrity of patient records can be applied in the new system.

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(Total for Question 2 = 8 marks)

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3 (a) Effective digital systems meet user needs and ensure quality service.

Explain **one** way to ensure that digital systems provide a quality service to meet user needs.

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(b) Explain **one** factor that influences the performance of a Central Processing Unit (CPU).

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(c) Describe how a firewall is used to improve security.

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(Total for Question 3 = 9 marks)

4 Explain **one** way a user could identify a phishing email.

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(Total for Question 4 = 3 marks)

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5 Describe **two** unforeseen factors that could trigger change in an organisation.

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(Total for Question 5 = 4 marks)

6 Explain why a company would want to keep details of unreleased products confidential.

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(Total for Question 6 = 3 marks)



7 Evaluate the impact of data access permissions on an organisation.

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(Total for Question 7 = 9 marks)

TOTAL FOR SECTION A = 40 MARKS





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SECTION B

Answer ALL questions. Write your answers in the spaces provided.

- 8 *Golwgda* is a software company that develops video games. It develops games that are run on a variety of hardware platforms including consoles and mobile devices.

One team within *Golwgda* is responsible for the development of a new multiplatform game.

- (a) Explain **two** benefits of using virtual environments to develop the game.

(4)

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(b) Explain **two** ways human error could increase the development time of the new game.

(4)

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(c) Explain **one** potential physical vulnerability to the system *Golwgda* uses to develop the game.

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(d) *Golwgda* wishes to develop its own gaming console.

Discuss the factors that can determine the feasibility of this digital project.

(6)

(Total for Question 8 = 16 marks)



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9 A bank is developing a new digital system.

This new system will replace an older digital system.

It is being prototyped at the bank's software development centre.

The security of the data held on this system is critical.

- (a) One reason the bank might need to introduce this new system is in response to a change in banking regulations.

Explain **two other** reasons why the bank might need to introduce this system

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(b) Describe how air-gapping can be used to improve the security of data held on this new digital system.

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(c) Explain **one** potential impact to the bank of failing to maintain the privacy of data held on this new system.

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(d) Evaluate the suitability of using the parallel changeover method to implement this new system.

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(Total for Question 9 = 18 marks)



10 *AM* is an estate agency that rents flats to students across the UK.

AM sends a member of staff to visit each new flat, to gather details.

Information about the flats are then entered onto *AM*'s website for students to view.

Many landlords own more than one flat for rent, but students can only rent one flat.

Students who wish to rent a flat must sign a lease, which allows them to live in the flat for 12 months.

- (a) *AM* issues each member of staff with a smartphone to gather information about the flats.

Explain how **two** items of input hardware found on smartphones could be used by *AM* when its staff visit a new flat.

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(b) *AM* uses a relational model to store details of landlords, flats and students.

Describe how the entities within the model can be linked.

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(c) Explain **one item of qualitative** and **one item of quantitative** data that *AM* would store about each flat.

(4)

Qualitative

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Quantitative

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(d) Explain how *AM* could use data held about students to perform targeted marketing.

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(e) *AM* wishes to install a new Local Area Network (LAN) in one of its branches. This branch is in an old building that has thick solid concrete walls.

This branch is the permanent base for five members of staff but is often used by staff from other branches when they are in that area.

Evaluate the suitability of installing either a wired or a wireless local area network in this branch.

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(Total for Question 10 = 26 marks)

TOTAL FOR SECTION B = 60 MARKS
TOTAL FOR PAPER = 100 MARKS



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