



Please check the examination details below before entering your candidate information

Candidate surname

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Centre Number

Learner ID

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**T Level Technical Qualification in Digital Production, Design and Development (Level 3)**

Time 2 hours 30 minutes

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

Total Marks

**Instructions**

- Use **black** ink or 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 as 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 ►

**P71486A**

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P 7 1 4 8 6 A 0 1 2 4

**Pearson**

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

SECTION A

- 1 (a) State **two** ways that data may be generated.

(2)

1 .....

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2 .....

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- (b) **Figure 1** is an incomplete diagram of the 7-layer OSI model. The names of layers 1 and 4 are missing.

Layer	Name
1	
2	Presentation
3	Session
4	
5	Network
6	Data Link
7	Physical

**Figure 1**

Complete the table in **Figure 1** by inserting the missing layer names.

(2)



(c) State **two** factors that can trigger change in organisations.

(2)

1 .....

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2 .....

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(Total for Question 1 = 6 marks)



P 7 1 4 8 6 A 0 3 2 4

2 Brogan Books is a bookshop.

(a) Brogan Books uses a relational database to track customer orders.

Describe how data from two different tables in a relational database may be linked together.

(2)

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(b) Brogan Books' accountant presents a summary of monthly sales data to the owners of the bookshop.

Explain why the accountant would choose to use a graph to do this.

(3)

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(c) Brogan Books is considering an upgrade to its digital systems.

Explain **two** factors that can determine the feasibility of this digital project.

(4)

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(Total for Question 2 = 9 marks)



P 7 1 4 8 6 A 0 5 2 4

3 Explain **two** reasons why smartphones use touchscreens.

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(Total for Question 3 = 4 marks)

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4 (a) Explain what is meant by a business that provides a service.

(2)

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(b) Describe **two** ways that digital systems can be used to add value to a company.

(4)

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(Total for Question 4 = 6 marks)



5 Explain **two** ways that the CIA triad can be applied to define security aims.

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(Total for Question 5 = 6 marks)

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**QUESTION 6 BEGINS ON THE NEXT PAGE.**



- 6 A developer wishes to use code development tools when writing and debugging a new program.

Evaluate the use of Integrated Development Environments (IDEs) when developing new software.

(9)

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(Total for Question 6 = 9 marks)

**TOTAL FOR SECTION A = 40 MARKS**



## SECTION B

- 7 A company is developing a new toy for young children.

The toy will be voice activated and will connect to the internet via the owner's home network.

The child will be able to talk to the toy. The toy will then contact the company's server to process what the child has said and to choose a suitable response.

The eyes of the toy can change colour depending on the loudness of the child's voice.

- (a) The toy contains input and output devices.

Explain **one input** device and **one output** device that could be used in this toy.

(4)

Input

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Output

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(b) The company uses a mobile processor in the toy.

Explain **two** benefits of using a mobile processor in the toy.

(4)

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(c) Describe **one** data security concern that parents may have about buying this toy.

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**QUESTION 8 BEGINS ON THE NEXT PAGE.**



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- 8 TreGlo is a small independent coffee shop that has not invested in any technology for some years.

Orders are taken at the counter, written down on a paper form and passed to the kitchen.

TreGlo is considering the use of self-service ordering machines. These machines would allow customers to select the items that they wish to buy and to pay for these items at the machine.

The machine would use a wireless link to a computer in the kitchen.

The drinks order would be picked up from a serving area.

- (a) Describe **two** ways that the user interface can be designed so that it aids users with accessibility considerations.

(4)

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(b) Explain **two** benefits to TreGlo of using self-service ordering machines.

(4)

1

2



P 7 1 4 8 6 A 0 1 7 2 4

(c) Explain **one** technical threat to a customer's payment data of using the self-service machine.

(3)

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(d) Similar systems are already used by some large fast-food chains.

The sales data that the self-service machines gather is stored in data warehouses.

Evaluate the use of data mining to extract meaningful information from data warehouses.

(9)

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(Total for Question 8 = 20 marks)



- 9 Beown is a construction company that specialises in the building of large structures such as schools, hospitals and shopping centres.

Beown has recently doubled its workforce and moved to a cloud-based storage environment.

Engineers working for Beown currently use a variety of common office packages. They also use several specialised design packages that they have customised for their specific needs.

- (a) Explain **one** way cloud storage would be of benefit to Beown's engineers when they visit building sites.

(3)

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- (b) The cloud storage provider has suggested that Beown should make use of a Software as a Service (SaaS) model.

Explain **one** reason why Beown's management might be reluctant to do this.

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(c) Beown regularly reviews its password policy.

Two rules in the password policy are:

- (1) passwords must be changed every 28 days
- (2) passwords must contain a mixture of letters and digits.

Explain why Beown has included **each** of these rules.

(4)

Rule 1

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Rule 2

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(d) Describe how Beown can limit access to files on its cloud-based storage environment to specific users.

(2)

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(e) Evaluate the security risks to Beown's data when using cloud-based platforms.

In your answer you should consider human, technical and physical risks.

(12)

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



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