

Cambridge International AS & A Level

CANDIDATE NAME					
CENTRE NUMBER			CANDIDATE NUMBER		

0 1 2 3 4 5 6 7 8 9

INFORMATION TECHNOLOGY

9626/01

Paper 1 Theory

For examination from 2025

SPECIMEN PAPER

1 hour 45 minutes

You must answer on the question paper.

No additional materials are needed.

INSTRUCTIONS

- Answer all questions.
- Use a black or dark blue pen.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction fluid.
- Do not write on any bar codes.
- You may use an HB pencil for any diagrams, graphs or rough working.
- Calculators must not be used in this paper.

INFORMATION

- The total mark for this paper is 70.
- The number of marks for each question or part question is shown in brackets [].

This document has 12 pages.

1	An operating system is system software that manages computer hardware and software resources
	Describe three tasks of an operating system.
	[3]
2	A company is investigating the quality of products provided by a local supermarket. The company is using direct and indirect sources to collect data. Give two examples of how the company could collect data for each source.
	Direct source 1
	Direct source 2
	Indirect source 1
	Indirect source 2
	[4]

3 An office worker is entering data into a company's staff database.

The table shows some of the data to be added. A format check is applied to the data.

Employee number	Date joined
CJ39013	30/05/2022
FJ26543	23/11/2022
BT95324	17/12/2022

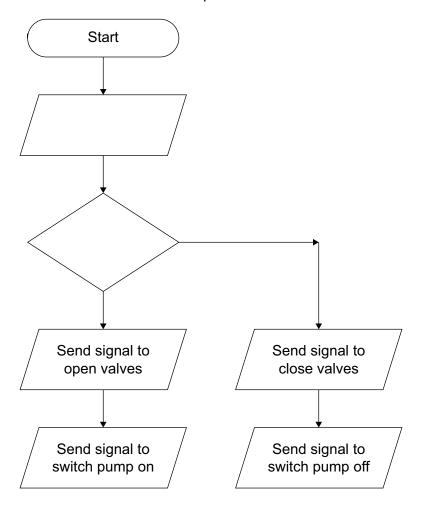
Assess the effectiveness of using format checks to validate this data. Include examples in yanswer.	
	16

Ac	company has an online ordering system which makes use of a transaction file and a master file.
(a)	The transaction file contains details of the goods ordered, details about the customers and the total amount for each order.
	Identify two other items which would be in the transaction file.
	1
	2[2]
(b)	Customers pay for their orders at the end of the month.
	The master file contains all customer details and how much money they owe. The master file is updated from the transaction file.
	Describe the data processing needed to update the master file.
	[6]

	Describe what each is when applied to an audio clip
(a)	Describe what echo is when applied to an audio clip.
	[2
(b)	Explain why noise reduction is applied to an audio clip.
	[2
(c)	Describe the term sampling resolution.
	[2

6 A house has a microprocessor-controlled central heating system.

Complete the flow chart to show how the temperature in the house is continuously controlled.



[5]

7	The	manager of a shop has been asked to present information about sales figures.	
	(a)	State the most suitable type of chart or graph to show sales trends over time.	
			[1]
	(b)	State the most suitable type of chart or graph to show the sales figures and names of 20 best-selling items.	the
			[1]
8	(a)	Describe what is meant by proprietary software and open-source software.	
			[4]
	(b)	Explain why open-source software is needed.	

Many different components are used in expert systems.	
Describe the role of the inference engine in an expert system.	
[6

9

10	Write a pseudocode algorithm, using a REPEAT UNTIL loop, that allows eight numbers to be entered and which will then display the smallest number.
	ιαι

11 A teacher is going to create a database for a school. The database will store all students' marks from weekly tests throughout the year. The database management software will use the total mark

Evaluate the	use of database	management	t software fo	or this purpo	ose.	
		•••••				
						 [8

12 Malware is intrusive software used by cyber criminals.

(a)	spyware	
		. [2
(b)	adware	
		. [2
(c)	worm	
		. [2

r	ransomware
•	
	[2]

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