



Cambridge International AS & A Level

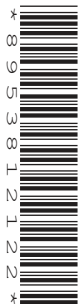
CANDIDATE
NAME

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INFORMATION TECHNOLOGY

9626/13

Paper 1 Theory

October/November 2021

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 90.
- The number of marks for each question or part question is shown in brackets [].

This document has **16** pages. Any blank pages are indicated.

2 (a) Tick the most accurate statement referring to software.

	✓
An operating system is an example of application software.	
Software consists of data or computer instructions.	
Software consists of RAM and ROM chips.	
A buffer is an example of application software.	

[1]

(b) Tick the most accurate statement referring to system software.

	✓
A spreadsheet is an example of system software.	
A blu-ray disc is an example of system software.	
A printer driver is an example of system software.	
Control software is an example of system software.	

[1]

(c) A company stores all its sales records in a spreadsheet.

Discuss the benefits and drawbacks of using a spreadsheet for this purpose.

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5 Many companies have an intranet for use by their workers.

Describe what a company intranet is.

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[6]

- 6 Many computer hardware companies use expert systems to diagnose computer faults. The inference engine is a key component in an expert system.

Describe, in detail, the other components of an expert system.

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- 7 All the exams taken in a school are marked out of 80. The school has introduced a system of marking where students are awarded 5 marks for just sitting the exam and then, as normal, are awarded further marks for correct answers.

The marks are stored in a spreadsheet and validated using a range check.

Describe, giving examples, **three** types of test data that could be used to test the range check. For each type of data, describe an improvement that might be necessary as a result of the testing.

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- (b) The tables were created with the field names shown. The field names were assigned correctly and then data was entered.

The software rejected the relationships as they were being set up.

Describe **two** reasons the software would have rejected the relationships.

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- 11 A journalist is researching background information on a story. His editor has provided some hard copy books on the topic. The editor has told the journalist to use the World Wide Web as well, because that could be more reliable than using the books.

Compare and contrast the use of these static and dynamic sources for this research.

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12 Describe what is meant by the following types of database query:

(a) Complex

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(b) Nested

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(c) Summary.

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