



Cambridge International AS & A Level

CANDIDATE
NAME

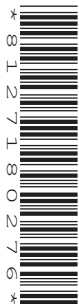
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CENTRE
NUMBER

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INFORMATION TECHNOLOGY

9626/11

Paper 1 Theory

October/November 2020

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. Blank pages are indicated.

3 A city suffers from the lack of fresh air because of its heavy traffic. A local government agency uses sensors to monitor the level of pollution in the air. The computer system monitors a number of physical variables.

(a) Describe how this system collects and processes this data.

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..... [5]

4 Li has just discovered his printer is not responding when he sends a document to print.

Describe how the following components of an expert system are used to diagnose faults with the printer.

(a) User interface

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..... [4]

(b) Inference engine

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..... [2]

(c) Knowledge base

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..... [2]

- 5 Louise, a teacher, has been asked to write a text book and will need to submit a sample chapter to the publishers. Before she submits this chapter, she wants to proofread it.

Describe how she should visually proofread this chapter.

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..... [4]

7 Define the following types of malware including a description of what each type does.

(a) Rootkit

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(b) Malicious bots

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(c) Ransomware

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(ii) Foreign key

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..... [3]

(iii) Compound key

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