



Cambridge International AS & A Level

CANDIDATE
NAME

CENTRE
NUMBER

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INFORMATION TECHNOLOGY

9626/31

Paper 3 Advanced Theory

May/June 2023

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. Any blank pages are indicated.

4 (a) Describe what is meant by a botnet.

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..... [3]

(b) Malicious botnets are used to attack systems and can be a threat to the security of stored data.

Explain how these botnets can be used to gain unauthorised access to data.

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10 The security of data can be threatened by unauthorised destruction or modification.

(a) Explain these terms. Give an example of each.

(i) data destruction

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..... [2]

(ii) data modification

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..... [2]

(b) Describe ways that data can be protected from unauthorised destruction and modification.

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..... [4]

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