Cambridge International AS & A Level
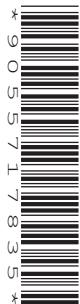
CANDIDATE NAME

CENTRE NUMBER

CANDIDATE NUMBER

INFORMATION TECHNOLOGY **9626/32**

Paper 3 Advanced Theory February/March 2024

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.

[Turn over

1 Near Field Communication (NFC) is a communication method.

Describe how NFC can be used by mobile devices.

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.... [6]

2 Explain why break statements, functions and comments are used in JavaScript code.

(a) Break statements

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(b) Functions

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(c) Comments

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3   Describe the Agile method used to develop software.

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4 Justify the use of lossy compression when storing and using bitmap images.

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5 Objects in computer animations have properties.

Describe the following properties.

(a) Orientation

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(b) Transparency

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.... [3]

6 Draw **three** different symbols used in a data flow diagram (DFD). For each symbol, state its purpose.

Symbol 1

Purpose 1

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Symbol 2

Purpose 2

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Symbol 3

Purpose 3

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[6]

7   Many companies have access control strategies to protect their data.

Explain how the use of an access control strategy can minimise the risks to computer data.

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8 Discuss the benefits and drawbacks of the use of cryptocurrencies by individuals.

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9   Botnets are software applications that are connected together over the internet.

     Describe how botnets attack computer systems.

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10 Alpha testing is carried out in the final stages of software development.

Describe the process of alpha testing.

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11 Discuss the benefits and drawbacks of using virtual servers for hosting websites.

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