Cambridge Assessment International Education
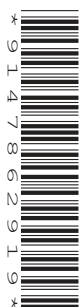
Cambridge International AS & A Level

CANDIDATE NAME

CENTRE NUMBER

CANDIDATE NUMBER

INFORMATION TECHNOLOGY **9626/33**

Paper 3 Advanced Theory **May/June 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. Any blank pages are indicated.

[Turn over

1 JavaScript uses loops to execute a block of code using Iterative methods.

(a) Describe what is meant by an Iterative method.

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(b) Explain how a `do/while` loop differs from a `while` loop.

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(c) Explain why a `while` loop might be used instead of a `for` loop in JavaScript code.

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2 Describe how stroke and fill settings can be used to change the appearance of text in a computer animation.

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3 Developers can use either evolutionary or throw-away prototyping to create prototypes of a new interface.

(a) Describe **two** advantages of using evolutionary prototyping.

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(b) Describe **one** disadvantage of using evolutionary prototyping.

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(c) Describe **two** advantages of using throw-away prototyping.

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(d) Describe **one** disadvantage of using throw-away prototyping.

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4 Discuss the benefits of the use of vision enhancement in health care.

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5 Computer devices can connect to a local area network (LAN).

Wi-Fi connections can only be used within range of a wireless access point (WAP).

(a) Explain why Wi-Fi connections to a WAP have a limited range.

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(b) Explain how the connection range of Wi-Fi can be increased.

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Devices use ethernet technology to send data on cabled LANs.

(c) Explain why ethernet technology is used on LANs to send data.

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6 Describe how a system flowchart is constructed.

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7 A specialist data mining company has been asked by a bank to create a data mining model. The bank will use the model to find out if there is fraudulent activity in the use of credit cards.

Describe the process the data mining company will use to create the model for the bank.

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8 Web browsers are clients which request services, such as web pages, from a web server. This is an example of the use of the client-server model of networking.

Justify the use of client-server networking in this scenario.

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9 Project management software (PMS) is used to support a project.

(a) Explain how PMS can be used for the scheduling of tasks in a project.

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(b) Explain why using PMS may **not** be appropriate for very small projects.

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10 Discuss the benefits and drawbacks to individuals of using chat rooms for social networking.

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