



Cambridge International AS & A Level

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INFORMATION TECHNOLOGY

9626/32

Paper 3 Advanced Theory

October/November 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.

1 Stored value cards can be used for making transactions such as paying for travel on public transport or for buying food and drink in cafes.

(a) Explain the benefits of stored value cards.

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..... [4]

(b) Describe **two** drawbacks of stored value cards.

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..... [2]

2 Different methods can be used to make objects appear to move in computer animations.

(a) Explain why key frames are used in computer animations.

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(b) Describe how property key frames are used in computer animation.

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4 Cellular networks are used to provide mobile communications for users.

(a) Describe the structure of a cellular network.

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(b) Explain how cellular networks allow large numbers of mobile (cell) phones to connect without interference from other mobile (cell) phones.

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5 Users may connect their smartphones to a local area network (LAN).

(a) Describe **two** reasons why a wireless connection to a local area network (LAN) may **not** be as secure as a wired connection.

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(b) Explain how a secure Wi-fi connection is established and maintained between a smartphone and a local area network (LAN).

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6 Loops in JavaScript repeatedly execute blocks of code.

(a) Describe how a `for` loop works in JavaScript code.

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(b) Contrast the use of `while` and `do while` loops in JavaScript code.

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7 In JavaScript, an object is defined as a collection of properties which can be amended or deleted.

(a) Describe how an object may be given a new property.

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(b) Describe how the properties of an object in JavaScript can be displayed using a loop.

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9 Describe the benefits to businesses of employees using instant messaging to communicate with other employees for business purposes.

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- 11 Technicians improve software by carrying out maintenance. Corrective maintenance modifies software to correct problems that have been identified in error reports from users.

Identify and describe **two** other types of software maintenance carried out by technicians.

Software maintenance 1

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Software maintenance 2

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[6]

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