



# Cambridge International AS & A Level

CANDIDATE  
NAME

CENTRE  
NUMBER

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CANDIDATE  
NUMBER

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**INFORMATION TECHNOLOGY**

**9626/13**

Paper 1 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.



3 There are different types of processing including batch processing and real-time processing.

(a) Without referring to master files and transaction files, describe what is meant by batch processing.

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..... [3]

(b) Rocket guidance systems are used in space exploration.

Explain why a rocket guidance system is an example of the use of real-time processing.

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.....  
..... [3]











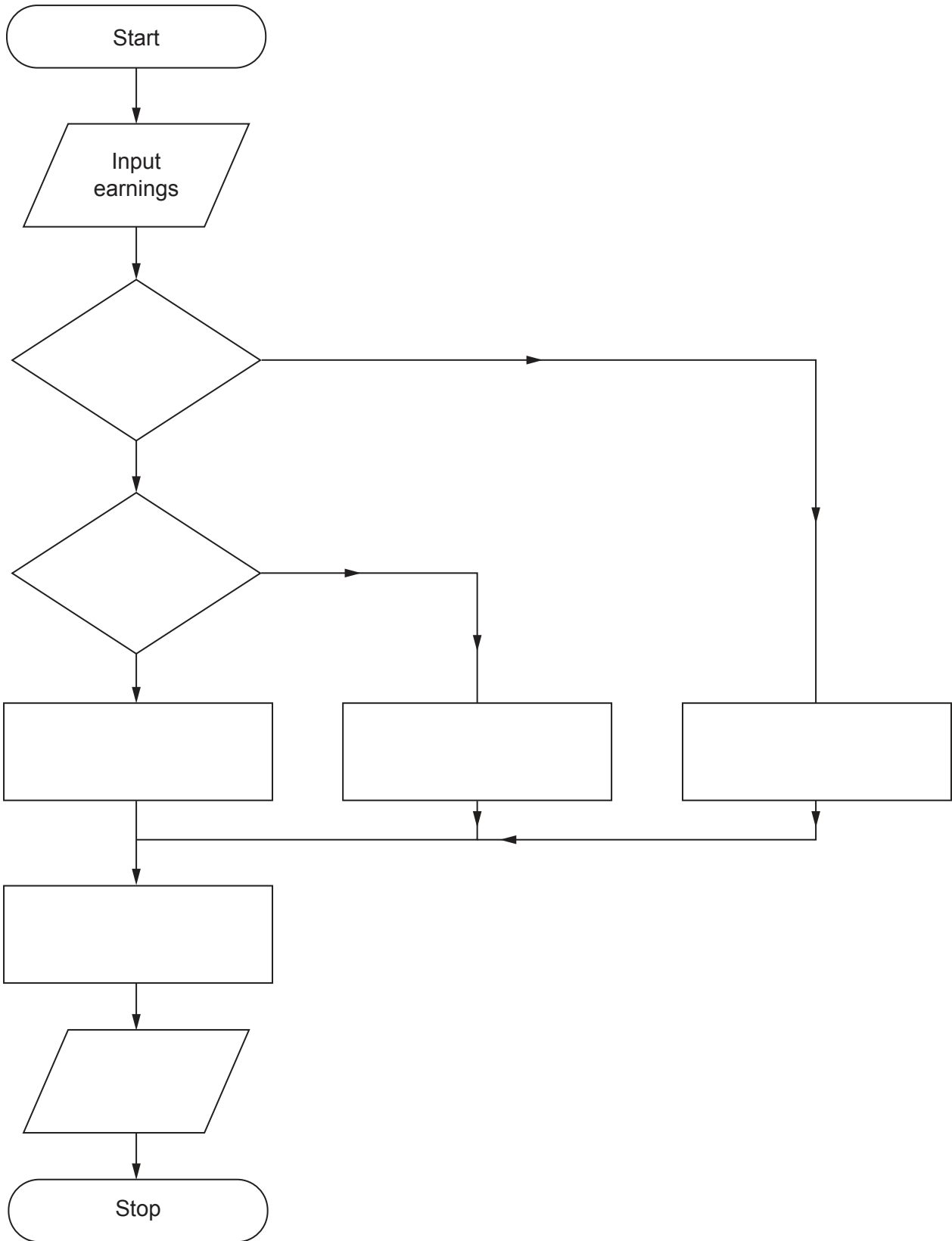




11 In Ruritania these are the tax rules.

- People who earn up to \$10 000 pay no tax.
- People who earn between \$10 000 and \$40 000 pay 20% tax on their earnings **above** \$10 000.
- People who earn more than \$40 000:  
pay \$6 000 ( $\$30\,000 \times 20\%$ )  
and pay 40% tax on their earnings **above** \$40 000.

Complete this flowchart which shows how the net wage (the money earned after tax is paid) is calculated and is output for an individual in Ruritania.



[8]

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