



Cambridge International AS & A Level

CANDIDATE
NAME



CENTRE
NUMBER

--	--	--	--	--

CANDIDATE
NUMBER

--	--	--	--

INFORMATION TECHNOLOGY

9626/13

Paper 1 Theory

October/November 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.



1 Different symbols are used in program flowcharts.

Draw, in the spaces provided, **four** different program flowchart symbols and for each one, state its purpose.

Symbol 1

Purpose
.....
.....

Symbol 2

Purpose
.....
.....

Symbol 3

Purpose
.....
.....





Symbol 4

Purpose

.....

.....

[8]

2 Describe the features of a management information system (MIS).

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

[6]





4 Validation and verification can be used to check the accuracy of data.

(a) Describe the differences between validation and verification. Your answer must explain the purpose of each.

.....

.....

.....

.....

.....

.....

.....

..... [3]

(b) Describe each of the following:

(i) range check

.....

.....

.....

..... [2]

(ii) double data entry

.....

.....

.....

..... [2]





5 Describe the use of a public key and a private key in asymmetric encryption.

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [4]

6 In a spreadsheet, a user has entered the following formula into a cell:

`=IF(NOT(OR(B6<5,B6>8)),"4th Quarter","")`

Describe how the spreadsheet will calculate the result to be displayed.

.....

.....

.....

.....

.....

.....

.....

.....

..... [3]





7 Describe the term goal driven as used in expert systems.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [4]



[8]

[8]



9 Describe the following types of malware:

(a) spyware

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [4]

(b) worm

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [4]



[8]

[8]



11 It is important that sensors are calibrated to ensure their readings are accurate.

Describe one point calibration.

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [4]





BLANK PAGE

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge Assessment International Education Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at www.cambridgeinternational.org after the live examination series.

Cambridge Assessment International Education is part of Cambridge Assessment. Cambridge Assessment is the brand name of the University of Cambridge Local Examinations Syndicate (UCLES), which is a department of the University of Cambridge.

