



Cambridge International AS & A Level

CANDIDATE
NAMECENTRE
NUMBER

--	--	--	--	--

CANDIDATE
NUMBER

--	--	--	--

INFORMATION TECHNOLOGY

9626/33

Paper 3 Advanced 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.



1 JavaScript can manipulate and store strings in variables.

(a) Define the term string as used in JavaScript.

.....
.....
..... [1]

(b) Describe how a string can be created in JavaScript.

.....
.....
..... [1]

(c) A variable `text1` is used to store `Cambridge` and a variable `text2` is used to store `International Examinations` in a block of JavaScript code.

(i) Describe how the two strings can be joined together (concatenated) as `Cambridge International Examinations` and stored in a new variable called `text3` in a JavaScript statement.

.....
.....
.....
.....
.....
..... [2]

(ii) Describe **one** method by which the word `Examinations` can be extracted from `text3` for use in another variable.

.....
.....
.....
.....
.....
..... [2]





[6]



3 Describe what is meant by each of the following terms that refer to bitmap images.

(a) brightness

.....

.....

..... [1]

(b) contrast

.....

.....

..... [1]

(c) colour balance

.....

.....

.....

.....

.....

..... [2]

(d) highlights

.....

.....

.....

.....

.....

..... [2]

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





Explain why a CMS is needed.

[6]

5 The agile method of software development is to be used to create an app for smartphones.

Justify the use of the agile method of software development.

[6]

6 Ultra-high definition (UHD) television systems have been developed and can be used to watch streaming videos.

(a) What is UHD television?

[2]



(b) Describe the impact of the development of UHD television systems on the environment.

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [4]





7 System flowcharts are a visual representation of the flow of data in a system.

(a) State the use of each of the following symbols in a system flowchart.

(i)

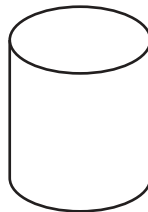


.....

.....

..... [1]

(ii)



.....

.....

..... [1]

(b) Draw **one** other system flowchart symbol and describe how it is used.

.....

.....

..... [2]





Discuss the use of data mining by businesses.

[8]

[6]

[6]

..... [2]

[2]



(b) (i) Describe cel animation.

.....

.....

.....

.....

.....

..... [2]

(ii) Cel animation is rarely used to create animations.

Explain why computer software has replaced cel animation.

.....

.....

.....

.....

.....

..... [2]

11 Unauthorised access to computer files can result in the manipulation and modification of computer data.

(a) Describe the difference between data manipulation and data modification.

.....

.....

.....

.....

.....

..... [2]

Please turn over for Question 11(b).





[8]

[8]

