



Cambridge International AS & A Level

CANDIDATE
NAME

CENTRE
NUMBER

--	--	--	--	--

CANDIDATE
NUMBER

--	--	--	--



INFORMATION TECHNOLOGY

9626/03

Paper 3 Advanced Theory

For examination from 2020

SPECIMEN PAPER

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. You may use an HB pencil for any diagrams, graphs or rough working.
- 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.
- Calculators must **not** be used in this paper.

INFORMATION

- The total mark for this paper is 90.
- The number of marks for each question or part question is shown in brackets [].

This document has **16** pages. Blank pages are indicated.

1 A television station makes its programmes in studios on the ground and transmits them via satellites to receivers in viewers' homes.

(a) Describe how a programme is transmitted from the station's studio to a viewer's satellite receiver.

.....
.....
.....
.....
.....
.....
.....
.....
..... [4]

(b) Explain **two** advantages to the viewer of using satellites to receive television programmes.

1

.....
.....
.....

2

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

(c) Explain **two** disadvantages to the viewer of using satellites to receive television programmes.

1

.....

.....

.....

.....

2

.....

.....

.....

..... [2]

(b) After developing the new computerised payroll system Jasbir will need to create a test plan. Describe how he would do this, including the type of testing he would carry out.

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
..... [4]

(c) When the new computerised payroll system is implemented, perfective maintenance will be carried out. Describe **two** other types of maintenance and suggest reasons why they would be needed in this scenario.

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
..... [4]

5 In computer programming, explain what is meant by the following terms.

(a) variable

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

(b) iteration

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

(c) loop

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

7 RockIT is an international company. The senior managers are based on the same site and use face-to-face meetings to communicate with each other. The senior managers use video-conferencing to communicate with the company's other offices around the world.

(a) Describe the features of a video-conference.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [4]

8 Shafiq has just logged on to a secure website.

(a) Describe how he knows that the website is secure.

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

(b) Describe the steps that the web browser will go through to ensure that Shafiq has logged on to a secure website.

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
..... [4]

9 (a) Describe what is meant by the use of biometrics when protecting devices from being accessed by unauthorised people.

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

(b) Many people are becoming concerned that too much reliance is being placed on the use of biometrics to protect devices from being accessed by unauthorised people.

Evaluate the suitability of biometrics for this purpose.

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
..... [8]

BLANK PAGE

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.

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