

Cambridge International AS & A Level

CANDIDATE NAME					
CENTRE NUMBER			CANDIDATE NUMBER		

0 1 2 3 4 5 6 7 8 9

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.

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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]

And	erson Chemicals have a computerised payroll system which has recently become out of date.
	oir, a systems analyst, has been asked to update the current system and will need to research problem.
(a)	Discuss the advantages and disadvantages of the different methods Jasbir could use for collecting information.
	[8]
	Jasl this

(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]

Safina, a project manager, uses a number of project management tools for planning the conversion of an existing classroom into a new computer room.
Describe how Safina would use these tools to plan the project.
[6]

A bank has a number of offices all over the world. Each office has a local area network (LAN). The LANs are connected together to create a wide area network (WAN) for use by its staff.

One of the office managers wants to improve the speed and efficiency of his office LAN. He wants to replace the existing copper cabling with an alternative communication method.

(a)	Evaluate three alternative methods of transmission the manager could use including optica methods.
	ro

(b)	Describe the role of three types of server that might be found in an office LAN.
	[6]

(c)	Explain how the bank could use encryption techniques to attempt to prevent its data from being read by unauthorised people.
	[6]

5	In c	omputer programming, explain what is meant by the following terms.
	(a)	variable
		[2]
	(b)	iteration
		[2]
	(c)	loop
		[2]

lde	ntify the positive and negative implications for society.	
		••
		••
		••
		• •
		•••
		••

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

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vide	eo-conferencing to communicate with the company's other offices around the world.
(a)	Describe the features of a video-conference.

b)	The senior managers meet in the same room each week in a face-to-face meeting. Expl why the senior managers would use face-to-face meetings rather than video-conferencing	J.
		[6]

(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.	Shariq has just logged on to a secure website.				
(b) Describe the steps that the web browser will go through to ensure that Shafiq has logged on to a secure website.	(a)	Describe how he knows that the website is secure.			
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to a secure website.		[2]			
	(b)				
[41]					
[41]					
[41]					
[41					
		[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.		

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