

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

General Certificate of Education Advanced Subsidiary Level and Advanced Level

CANDIDATE NAME				
CENTRE NUMBER		CANDIDATE NUMBER		

COMPUTING 9691/12

Paper 1 May/June 2011

1 hour 30 minutes

Candidates answer on the Question Paper.

No additional materials are required.

No calculators allowed.

SUITABLE FOR HEARING IMPAIRED CANDIDATES

READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name on all the work you hand in.

Write in dark blue or black pen.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid.

DO NOT WRITE IN ANY BARCODES.

Answer all questions.

No marks will be awarded for using brand names for software packages or hardware.

At the end of the examination, fasten all your work securely together.

The number of marks is given in brackets [] at the end of each question or part question.

This document consists of 11 printed pages and 1 blank page.



(a)	Def	ine the terms:	For
	(i)	hardware	Examiner's Use
	(ii)	software	
		[2]	
		market has a number of point-of-sale terminals. read from goods at the terminals and information is produced.	
(b)		te two output devices which would be used at the point-of-sale, giving a reason for ir use.	
	De	vice 1	
	Re	ason	
	De	vice 2	
		ason	
		[4]	
(c)		te three types of output needed at the point-of-sale terminals. For each type of put explain why the output is needed.	
	Ou	tput 1	
	Ou	tput 2	
	Ou	tput 3	

1

(d) The management of the supermarket use a number of different types of software.

State what each of the following types of software would be used for.

Give a feature of each which makes it suitable for their use.

(i) Desktop publishing (DTP)

Use

Feature

[2]

(ii) Presentation software

Use

Feature

		ms analyst is employed to produce a new stock control system for a company. The er of the company is not satisfied with the present system.
(a)		plain the importance to both analyst and manager of defining the problem urately. You should make clear the part played by each person.
		[4]
(b)	(i)	Explain how the evaluation of the new system will be carried out.
	(ii)	Explain why the evaluation is important to both the analyst and the manager.
		[4]

For Examiner's Use

2

(a)	(i)	Explain what is meant by the character set of a computer.	E
	(ii)	Explain how a character is represented in a computer.	
		[4]	
(b)	Exp	plain the representation of integers in a computer.	
		[3]	

For Examiner's Use

3

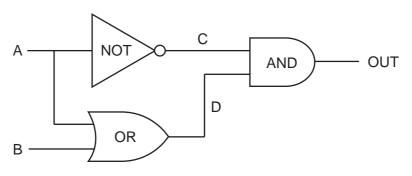
A li	brary	membership system identifies members by their unique 6-digit ID number.	For
(a)	Exp (Yo	plain how the member file could be accessed using indexes. u may find it helpful to draw a diagram.)	Examiner's Use
		[2]	
(b)	(i)	Explain how hashing could be used to access the member file randomly.	
	(ii)	Clashes can occur when the member file is accessed using hashing. State what is meant by a clash and how it can be dealt with.	
		[4]	

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5	(a)	Des	scribe the purpose of each of the following parts of a processor:	F
		(i)	Control unit	Exam U
			[2]	
		(ii)	Memory unit	
		,,,, ,	[2]	
		(111)	ALU	
			[0]	

(b)	Describe the use of buffers and interrupts in the transfer of data between primary memory and hard disk.	
	[E1	

6 Complete the table for this circuit of logic gates.



Α	В	O	D	OUT
0	0			
0	1			
1	0			
1	1			

[6]

7

An interactive computer system in a shopping mall is intended to give information to customers. Discuss how the use of colour, layout and content will influence the design of the human semperator interface (HCI)
computer interface (HCI).
Colour
Layout
Content
[6]

8	(a)	State two differences between a local area network (LAN) and a wide area network (WAN).	For Examiner's Use
		1	
		2	
		[2]	
	(b)	State what is meant by each of the following types of data transmission. Give an advantage of each.	
		(i) Serial	
		Advantage	
		(ii) Parallel	
		Advantage	
		[4]	
	(c)	The following bytes were received during a data transmission.	
		01101101 10101010 10111101 10110001	
		Parity is being used as an error check. State which one of the bytes has been corrupted. Explain why you chose the one that you did.	
		Corrupted byte	
		Reason	
		rol	
		[3]	

9	(a)	Describe a single-user operating system.
		[2]
	(b)	Explain how a multi-user operating system allows many users to use the computer system.
		[4]

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