



	International General Certificate of Secondary Education	IONS
CANDIDATE NAME		
CENTRE NUMBER	CANDIDATE NUMBER	
INFORMATION	I AND COMMUNICATION TECHNOLOGY	0417/13
Paper 1	0	ctober/November 2010
		2 hours
Candidates ans	wer on the Question Paper.	
No Additional M	laterials are required.	
READ THESE	INSTRUCTIONS FIRST	
Write your Cen	tre number, candidate number and name on all the work you hand in.	
	ue or black pen.	
•	soft pencil for any diagrams, graphs or rough working. bles, paper clips, highlighters, glue or correction fluid.	
•	E IN ANY BARCODES.	

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

Answer all questions.

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.

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This document consists of 12 printed pages.



1 Name the input devices **A**, **B**, **C** and **D** using the words from the list.

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		Α		В		
		С		D		
	Chip reader	Digital camera		Joystick	Light pen	
	Microphone	Remote control		Scanner	Trackerball	
A C			B D			[4]

2 Ring two items which are storage media.

Flash memory card	Graph plotter	Magnetic disc
OCR	OMR	Touch pad

[2]

3 Tick **TRUE** or **FALSE** next to each of these statements.

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	TRUE	FALSE
An internet browser is used to look at pages on the world wide web.		
Desktop computers don't have hard disk drives.		
DTP software can be used to produce magazines.		
Measurement software is used for environmental monitoring.		
Sensors are output devices.		

[5]

	4	Complete	each	sentence	below	using	one	item	from	the	list
--	---	----------	------	----------	-------	-------	-----	------	------	-----	------

A bar code reader A dot matrix printer A graph plotter

A graphics tablet A microphone A multimedia projector

A pressure sensor A speaker A touch pad

A web cam

(a)	is used in CAE	applications to	produce very	/ large printouts

(b) _____ is used to display data from a computer onto a very large screen.

(c) sends data to a microprocessor in a washing machine.

(d) is used to control the pointer on a laptop screen.

(e) _____ is used to input sounds for use in presentation software.

[5]

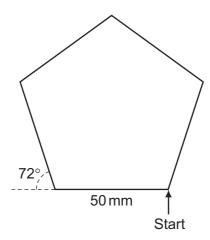
5 A school teacher keeps records of her students' test scores on a computer. At the end of each term she prints out letters to parents showing these results. She also uses the computer to predict the students' future test scores. Tick **three** items of software which she could use.

	✓
Word processing software	
Measuring software	
Control software	
Spreadsheet software	
Animation software	
Database software	

6 A floor turtle can use the following instructions:

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INSTRUCTION	MEANING
FORWARD n	Move <i>n</i> mm forward
BACKWARD n	Move <i>n</i> mm backward
LEFT t	Turn left t degrees
RIGHT t	Turn right t degrees
PENUP	Lift the pen
PENDOWN	Lower the pen
REPEAT n	Repeat the following instructions <i>n</i> times
END REPEAT	Finish the REPEAT loop



Complete the set of instructions to draw this shape by filling in the blank lines.

PEN DOWN	
	90
REPEAT	
FORWARD	
	72

[5]

Give three features of a rela	tional database t	hat are not found in a flat	file databa	se.	Exami Us
1					
2					
3					
				[3]	
Tick TRUE or FALSE next to	each statement				
			TRUE	FALSE	
Online processing requires	a transaction file	to be created.			
Batch processing results in	immediate updat	ting of records.			
Real time processing requir	es immediate res	sponse from a computer.			
Online processing is needed	d for operating A	TMs.			
The manager of a booksho This is part of the database.	p uses a databa	ase to store data about	the books	[4] she sells.	
Title of book	Fiction	Number in stock	Next ord	er due	
Full Circle	N	15	20/11	/10	
Sanditon	Υ	15	18/11	/10	
Vanity Fair	Υ	20	16/12	/10	
The Old Curiosity Shop	Υ	10	23/11	/10	
Using the data above only , v (a) Boolean (b) Alphanumeric	vrite down one ite	em of data for each data	type below		
(c) Date					
(d) Numeric					
(u) Numeric				[4]	I

10 Multi-national companies often use video conferencing instead of face to face meetings.

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Tick whether the following statements are **TRUE** or **FALSE**.

	TRUE	FALSE
A large hall has to be hired for video conferences to take place.		
Documents can be shared amongst participants in a video conference.		
A microphone or headset is an essential item of equipment in video conferencing.		
A codec is needed to convert data for transmission during a video conference.		
		[4]
Explain why the following are used with PCs.		

		[4]	
11	Ехр	lain why the following are used with PCs.		
	Per	n drives	• 1	
	Blu	-ray		
	Fix	ed hard disc drives		
12	use	oil company is investigating whether they are likely to find oil at a certain site. They wi an expert system to help them. There are a number of inputs and outputs used with a system. List four examples of these.	- 	
	1			
	2			
	3		• •	
	4	[4]	

13	Draw four lines on the diagram to match the use to its most appropriate output device.		
	Use	Output device	
	to produce high quality hard copy	dot matrix printer	
	to print on multipart forms	motor	
	to move objects in a computer controlled system	speakers	
	to output voiceovers	laser printer	
		[4]	
14	A small office has four standalone computers. The office manage computers together to form a LAN.	er wants to connect the	
	(a) Name a network device which would have to be present in each could be networked.	h computer before they	
		[1]	
	(b) Give two reasons why a WLAN would be preferable to a cabled		
	2	[2]	
	(c) Give two reasons why the manager should not use Bluetooth to network.	echnology to create the	
	1		
	2		
		[2]	

(d)	The company's workers are concerned that their payroll data may not be secure as a result of the computers being networked. Explain why the workers are concerned.
	ro1
	[6]
(e)	Give three actions that the office manager could take to ensure data security.
	1
	2
	3
	[3]

15	Describe two health issues, other than RSI, caused by the prolonged use of computers. For each health issue give a method of prevention.	
	Health issue 1	
	Method of prevention	
	Health issue 2	
	Method of prevention	
	[4]	
16	Aysha wants to enter customer details into her company's database.	
	(a) In the box below, design a user friendly input screen which has appropriate spacing for each field as well as navigation aids. The fields to be included are:	
	Name	
	Address	
	Date of Birth	
	Customer Id	
	Gender	
	[5]	,

After the new system is designed and before it is implemented, Aysha wants to test it with

(b) Describe what is meant by live data and how it is used to test a system. 17 Identify **three** methods which could be used to implement a new system. 1 2 3

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18			ew system is implemented, documentation is provided with it. Identify four item ild be found in technical documentation but not in user documentation.	าร
	•••••		[4	4]
19			bhy teacher wants to use a computer to monitor the weather conditions using that ather station.	ne
	(a)	Name	three sensors in the weather station.	
		1		
		2		
		3	[3	3]
	(b)	Explai	in why computers are unable to read the data directly from these sensors.	
				2]
	(c)	What	device is needed to enable the computer to read the data?	
	-		[1]

20	A payroll office, which prints out large numbers of payslips every month, has decided to install a new printer. Discuss the advantages and disadvantages of using a laser printer, an inkjet printer or a dot matrix printer in this office.
	[6]
21	Describe four advantages to businesses of using email to send messages to other businesses rather than using fax machines.
	1
	2
	3
	4
	[4]

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