

#### UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS International General Certificate of Secondary Education

	CANDIDATE NAME		
	CENTRE NUMBER		CANDIDATE NUMBER
* 6 7	INFORMATION	AND COMMUNICATION TECHNOLOGY	0417/11
6 <sup>4</sup>	Paper 1		October/November 2010
°.			2 hours
7 3	Candidates ans	wer on the Question Paper.	
3	No Additional M	aterials are required	

No Additional Materials are required.

#### **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.

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.

For Examiner's Use	

This document consists of 12 printed pages.



UNIVERSITY of CAMBRIDGE International Examinations

[Turn over

# WWW\_XTREMEPHPERS\_NET

1 Name the input devices A, B, C and D using the words from the list. For Examiner's Use С D Α В Light pen Microphone Numeric keypad Remote control Scanner Touch pad Trackerball Web cam А В ..... С D ..... ..... [4] 2 Ring two items which are storage media. Bar code reader **DVD RAM** Joystick Magnetic tape **Touch screen** Sensor [2] Tick **TRUE** or **FALSE** next to each of these statements. 3 TRUE FALSE

	IIIOL	IALOL
DTP software can be used with sound files.		
Measurement software is used to send emails.		
Spreadsheet software is used to create models.		
A command line interface can be used to communicate with a computer.		
PDAs are usually bigger than laptops.		

[5]

0417/11/O/N/10

# WW.XTREMEPAPERS.NET

4 Complete each sentence below using **one** item from the list.

A chip reader	A digital camera	A graph plotter	
A graphics tablet	A joystick	A laser printer	
A multimedia projector	An optical mark reader	A temperature sensor	
A TFT monitor			
(a)	is used to send data to a microp	rocessor controlled cooker	
(a)	•		
(b)	is used to read details from a ba	nk card.	
(c)	is used to control a car driving s	imulator.	
(d)	is used to take photographs for i	nclusion in a web site.	
(e)	is used to input data from a scho	ool register.	

5 Tick **three** items of software which a PC connected to the internet might use.

	~
A modem	
A virus scanner	
An email package	
Another PC	
A browser	
A keyboard	

- A school has a database which includes details of every student. Tick whether the following
- 6 A school has a database which includes details of every student. Tick statements refer to a file, a field or a record.

	Field	File	Record
All the information about one student.			
One piece of information about each student.			
A primary key.			
All the information about all the students.			

[3]

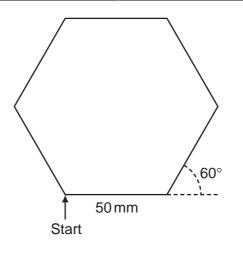
[5]

For Examiner's Use

WWW.XTREMEPHPERS.NET

7 A floor turtle can use the following instructions:

INSTRUCTION	MEANING
FORWARD n	Move <i>n</i> mm forward
BACKWARD n	Move <i>n</i> mm backward
LEFT t	Turn left <i>t</i> degrees
RIGHT t	Turn right <i>t</i> 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
\_\_\_\_\_60

[5]

For Examiner's Use

0417/11/O/N/10

WWW.XTREMEPAPERS.NET

© UCLES 2010

8

0417/11/O/N/10

WWW.XTREMEPAPERS.NET

#### [Turn over

Tick **TRUE** or **FALSE** next to each statement to indicate if it is an example of online processing.

For Examiner's Use

	TRUE	FALSE
Computerised booking of a theatre ticket.		
Clearing cheques overnight.		
Paying at a supermarket using Electronic Funds Transfer.		
Printing monthly credit card bills.		

[4]

- 9 Multi-national companies often use video conferencing instead of face-to-face meetings.
  - (a) Tick three advantages of video conferencing.

	$\checkmark$
Companies don't have to employ so many workers.	
Companies can call meetings at short notice.	
Employees don't have to prepare for meetings.	
Companies do not have to pay travelling expenses.	
Employees can work from home.	
Companies don't have to have any offices.	

[3]

(b) Tick three disadvantages of video conferencing.

	✓
It is difficult to call international meetings because of time differences.	
Employees can't see the documents which are being discussed.	
The initial cost of hardware can be expensive.	
There is a loss of personal and social contact.	
Companies are unable to contact the employees about having a conference.	
Companies have to hire expensive halls.	

[3]

**10** Write down the most suitable data type for each item of data in the table below.

For Examiner's Use

Registration number	Day/Month/Year of manufacture	Doors	Air conditioning (Y/N)
KAC 758F	12/10/1991	4	Y
KAR 815P	03/06/2005	5	N
KAB 179A	05/08/1990	5	N
KAP 613Y	11/08/2004	3	N

Registration number	
Day/Month/Year of manufacture	
Doors	
Air conditioning	

[4]

**11** All computers come with main memory as well as backing storage. Give a reason why the following are needed.

RAM		
ROM		
Backing storage		
	[3	]

0417/11/O/N/10

## WWW.XTREMEPAPERS.NET

12 Car mechanics often use expert systems to diagnose faults with car engines. List four parts of an expert system. Examiner's 1 2 3 4 [4] **13** Draw **four** lines on the diagram to match the use to its most **appropriate** storage medium. Use Storage medium storing data in online applications **DVD ROM** to store data that cannot be changed **Fixed hard disc** saving work and transporting it to other computers Magnetic tape taking backups of file servers Pen drive [4] 14 (a) Give two uses of ICT devices which, when prolonged, can cause RSI. 1 2 \_\_\_\_\_ [2] (b) Identify two safety issues and how they are caused. 1 ..... 2 [2] .....

0417/11/O/N/10

WWW\_XTREMEPAPERS

For

Use

7

[2] ..... (c) The company's workers are concerned that their data may not be secure. Name three authentication techniques and for each one explain how it will help to prevent illegal access to the data. 1 ..... ..... 2 3 [6] © UCLES 2010 0417/11/O/N/10

**15** A large company has two separate sites both of which have a LAN. The manager of the company wants to connect the LANs to form a WAN.

For

Examiner's Use

[3]

(a) Name three network devices which could be found in a LAN that is not connected to a WAN.

(b) The manager wants to buy a router to connect the LANs. Describe the function of a

1

2

3

router.

## WWW\_XTREMEPAPERS\_NET

[Turn over

0417/11/O/N/10

WWW.XTREMEPAPERS.NET

9	

**16** When a new system is implemented, documentation is provided with it. Explain why **two** different types of documentation are produced.

For Examiner's Use

		[4]
17	(a)	Explain what is meant by a computer virus.
		[2]
	(b)	Explain what is meant by hacking.
		[2]

**18** Aysha needs to enter customer details into her company's database. She has asked her friend Ali to design an input screen to enable her to do this. She is not pleased with his attempt.

Name\_\_\_\_\_ Address Date of birth \_\_\_\_ / \_\_\_ / \_\_\_\_ Customer ID \_\_\_\_\_ Type in male or female Type in *next* for next record or *back* for previous record (a) Describe five improvements which could be made to this screen. 1 ..... 2 ..... 3 4 5 ..... [5] .....

For

Examiner's Use

0417/11/O/N/10

### WWW\_XTREMEPHPERS\_NET

For Examiner's Use

0417/11/O/N/10

WWW\_XTREMEPAPERS\_NET

© UCLES 2010

11

(b) The new system will be tested. The month part of the date of birth field must be a whole

**20** A group of car mechanics has decided to buy a new printer for their workshop. Discuss the different options which are available in terms of a laser printer, inkjet printer and dot matrix printer.

[6] 21 Describe four advantages of using mobile phones to speak with other people rather than sending emails using a laptop. 1 ..... 2 3 ..... 4 [4]

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.

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

0417/11/O/N/10

For

