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General Certificate of Secondary Education  
2010

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Candidate Number

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# Information and Communication Technology

## Short Course

### Foundation Tier



G5301

[G5301]

MONDAY 21 JUNE, MORNING

#### TIME

1 hour.

#### INSTRUCTIONS TO CANDIDATES

Write your Centre Number and Candidate Number in the spaces provided at the top of this page.

Write your answers in the spaces provided in this question paper.

Complete in blue or black ink only. **Do not write in pencil or with a gel pen.**

Answer **all fourteen** questions.

#### INFORMATION FOR CANDIDATES

The total mark for this paper is 100, including a maximum of 5 marks for quality of written communication.

Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each question or part question.

For Examiner's use only	
Question Number	Marks
1	
2	
3	
4	
5	
6	
7	
8	
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10	
11	
12	
13	
14	
QWC	

<b>Total Marks</b>	
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6269

Examiner Number

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(jun10G5301)

**Answer all fourteen questions**

**For question 1 insert the appropriate letter in the space provided**

Examiner Only	
Marks	Remark

**1 (a)** Computer technology allows us to create virtual worlds for gaming and training. Which of the following is **NOT** a feature of a virtual world?

- A** Online and interactive
- B** Online and batch processed
- C** Online and real-time
- D** Online and computer based

Answer \_\_\_\_\_ [1]

**(b)** Which of the following correctly describes what the boot-up program on a computer does?

- A** It carries out hardware checks and loads the operating system into the hard disc from main memory
- B** It carries out hardware checks and loads the operating system into cache memory from the hard disc
- C** It carries out hardware checks and loads the operating system into the hard disc from cache memory
- D** It carries out hardware checks and loads the operating system into main memory from the hard disc

Answer \_\_\_\_\_ [1]

(c) Which of the following statements about *teleworking* is **NOT** true?

- A Teleworking cuts down on company overheads
- B Teleworking means more travelling for employees
- C Teleworking requires employees to make use of technology
- D Teleworking allows companies to employ people from a wider geographic area

Answer \_\_\_\_\_ [1]

(d) Which of the following is **NOT** provided by a typical EPOS system?

- A Automatic tracking of stock
- B Bar code reading
- C Itemised receipt
- D Immediate transfer of funds

Answer \_\_\_\_\_ [1]

(e) Select the memory chip used to store control programs in electronic devices in the home.

- A Cache
- B ROM
- C Main
- D RAM

Answer \_\_\_\_\_ [1]

Examiner Only	
Marks	Remark

(f) Which statement is **TRUE** about The Data Protection Act?

- A Allows data subjects to view all data held about them and other people in a file
- B Allows data subjects to view all data held about them and have it corrected if it is incorrect
- C Does not allow all data subjects to view all data held about themselves
- D Does not allow data subjects to have data corrected if it is incorrect

Answer \_\_\_\_\_ [1]

(g) According to The Data Protection Act, the data controller

- A Ensures that data is not transferred
- B Ensures that data is not accessed by data subjects
- C Ensures that data is stored securely
- D Ensures that data is accessed by all data subjects

Answer \_\_\_\_\_ [1]

(h) Multimedia presentation software allows

- A The use of slide masters and efficient numeric calculation
- B The use of slide masters and the storage of records
- C The storage of records and the inclusion of navigation buttons
- D The inclusion of sound and navigation buttons

Answer \_\_\_\_\_ [1]

Examiner Only	
Marks	Remark

(i) Which of the following is a magnetic storage device?

- A CD-R
- B DVD-RW
- C Flash Memory Stick
- D External Hard Drive

Answer \_\_\_\_\_ [1]

(j) A simulation is a

- A graphic which has been edited
- B spreadsheet which returns correct results
- C computer program used to model a real life situation
- D database which contains reports

Answer \_\_\_\_\_ [1]

Examiner Only	
Marks	Remark
Total Question 1	

2 Andrew has a photography business. He has bought word processing software for his computer.

- (a) He will use a template to create a brochure advertising his company. What is a template?

\_\_\_\_\_  
\_\_\_\_\_ [2]

- (b) The template will allow Andrew to produce the brochure very quickly. List **ONE other** advantage to Andrew of using a template to create a brochure.

\_\_\_\_\_  
\_\_\_\_\_ [1]

Examiner Only	
Marks	Remark

(c) Consider the following features of a word processor. Tick (☐) **TWO** boxes that best describe each feature.

Features	Description
<b>Mailmerge</b>	<input type="checkbox"/> Uses a database <input type="checkbox"/> Provides step by step instructions <input type="checkbox"/> Helps users complete tasks <input type="checkbox"/> Requires fields to be added to the main document <input type="checkbox"/> Allows users to add new words <input type="checkbox"/> Helps ensure spelling is correct <div style="text-align: right;">[2]</div>
<b>Wizard</b>	<input type="checkbox"/> Uses a database <input type="checkbox"/> Provides step by step instructions <input type="checkbox"/> Helps users complete tasks <input type="checkbox"/> Requires fields to be added to the main document <input type="checkbox"/> Allows users to add new words <input type="checkbox"/> Helps ensure spelling is correct <div style="text-align: right;">[2]</div>
<b>Dictionary</b>	<input type="checkbox"/> Uses a database <input type="checkbox"/> Provides step by step instructions <input type="checkbox"/> Helps users complete tasks <input type="checkbox"/> Requires fields to be added to the main document <input type="checkbox"/> Allows users to add new words <input type="checkbox"/> Helps ensure spelling is correct <div style="text-align: right;">[2]</div>

Examiner Only

Marks

Remark

Total Question 2

**[Turn over**

6269

(07)

**3** Robert is carrying out a science experiment at school. He needs to monitor the weather temperature in °C and take a reading each hour for a 5 day period.

**(a)** Robert's science teacher suggests using data logging. Complete the sentence using the following words (use each word **only once**).

**TEMPERATURE      SENSOR      INTERVAL      CAPTURE**

Data logging involves the use of a \_\_\_\_\_ to \_\_\_\_\_ data. The time taken between each reading is called the data logging \_\_\_\_\_. In this case a \_\_\_\_\_ sensor would be appropriate. [4]

Examiner Only	
Marks	Remark
Total Question 3	



4 Owen has a digital television in his living room and has bought his mum a digital camera for her birthday.

- (a) List **ONE** advantage of using a digital camera to encourage Owen's mum to use her new camera.

\_\_\_\_\_ [1]

- (b) The camera has a touch screen for changing settings. Tick () **TWO** statements which are **true** about touch screen technology.

Statement	Tick ( <input type="checkbox"/> )
Most touch screens show blurry images.	
A touch screen can be used as an input device.	
A touch screen requires a high level of ICT knowledge to use.	
A touch screen can be used as an output device.	

[2]

- (c) Owen's digital television is *interactive*. List **TWO** ways in which he can make use of **this feature**.

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_ [2]

Examiner Only

Marks Remark

Total Question 4

[Turn over

5 Eleanor works for the local newspaper. She is responsible for photographs and graphics. She is creating a “50 Years Ago” page for the town.

(a) She has been given old photographs. Suggest **ONE** method for getting these onto the computer.

\_\_\_\_\_ [1]

(b) Eleanor is using photographs taken by a local photographer 15 years ago. If she does not seek his permission what law is she breaking?

\_\_\_\_\_ [2]

(c) Whilst creating the “50 Years Ago” page, Eleanor’s computer breaks down. She discovers that the computer has become infected with a **virus**.

(i) What is a **virus**?

\_\_\_\_\_  
 \_\_\_\_\_ [2]

(ii) List **TWO** things Eleanor could have done to prevent the virus infection.

1. \_\_\_\_\_  
 \_\_\_\_\_  
 2. \_\_\_\_\_  
 \_\_\_\_\_ [2]

(iii) Eleanor discovers that the virus has been created by someone in her office. What law has this person broken?

\_\_\_\_\_ [1]

Examiner Only	
Marks	Remark
Total Question 5	

6 AMAZINGBOOKS.COM is an online bookshop. Books can be ordered online and delivered to customers' homes.

- (a) Mary has ordered a book and paid by credit card. Give **ONE** advantage to Mary of shopping online.

\_\_\_\_\_ [1]  
\_\_\_\_\_

- (b) John has ordered a book for download to his iPhone. Give **ONE** advantage of **ordering** a book for download instead of through the post.

\_\_\_\_\_ [1]  
\_\_\_\_\_

- (c) Give **ONE** reason why a **password** would be necessary when a customer is logging on to their account at AMAZINGBOOKS.COM.

\_\_\_\_\_ [1]  
\_\_\_\_\_

- (d) The website manager has decided to try to prevent hacking. Tick () **ONE** statement which is true about hacking.

Statement	Tick ( <input type="checkbox"/> )
Hacking involves placing data on the Internet	
Hacking involves unauthorised access to the system	
Hacking breaks the Data Protection Act	

[1]

Examiner Only

Marks Remark

Total Question 6

[Turn over

- 7 Niamh is a GCSE student. She has created the following files and folders for her GCSE coursework.



database



Blue hills



currency

GCSE Full  
ICT First Edit

Assignment 1



Assignment 2



Assignment 3

- (a) In the table below, circle the statement which is correct. The first one has been done for you.

Filename	Statement				
Assignment 1	has been created by a word processor	has been created by a graphics package	has been created by presentation software	has been created by a spreadsheet package	is a folder
Assignment 2	has been created by a word processor	has been created by a graphics package	has been created by presentation software	has been created by a spreadsheet package	is a folder
Assignment 3	has been created by a word processor	has been created by a graphics package	has been created by presentation software	has been created by a spreadsheet package	is a folder
database	has been created by a word processor	has been created by a graphics package	has been created by presentation software	has been created by a spreadsheet package	is a folder

[3]

Examiner Only	
Marks	Remark

(b) Niamh has been told by her teacher to make a backup of the coursework folder.

(i) What is a **backup**?

\_\_\_\_\_ [1]  
\_\_\_\_\_

(ii) Why should Niamh keep a backup?

\_\_\_\_\_ [1]  
\_\_\_\_\_

(iii) Niamh chooses CD-R to make her backup. List **ONE** feature of CD-R which makes it suitable for backup.

\_\_\_\_\_ [1]

Examiner Only

Marks

Remark

Total Question 7

8 Happy Days Bank provide their customers with:

- **Debit and Credit cards**
- **Online banking**

(a) The debit and credit cards contain **smart chip** technology. List **TWO** features of a **smart chip**.

1. \_\_\_\_\_
2. \_\_\_\_\_ [2]

(b) The debit and credit cards also contain a magnetic stripe. Circle **TWO** of the boxes below which contain statements which are **TRUE** about magnetic stripes.

Data on a magnetic stripe can be read by humans	Data on a magnetic stripe can be damaged by magnetic fields	Magnetic stripes can hold very large quantities of data	Data on a magnetic stripe must be read by a special reader
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[2]

(c) Some customers make use of the online banking facility and **ATM**.

(i) What do the letters **ATM** stand for?

\_\_\_\_\_ [1]

(ii) List **TWO** features available for customers at an ATM.

1. \_\_\_\_\_  
\_\_\_\_\_
2. \_\_\_\_\_  
\_\_\_\_\_ [2]

Examiner Only

Marks Remark

Total Question 8

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**(Questions continue overleaf)**

9 The Internet exists on a **WAN**.

(a) What do the letters **WAN** stand for?

\_\_\_\_\_ [1]

(b) George needs to go online. Tick () **ONE** statement which best explains why he needs each of the following items.

Item	Statement
Search Engine	<input type="checkbox"/> To upload and download files <input type="checkbox"/> To display webpages <input type="checkbox"/> To find webpages <input type="checkbox"/> To get connected to the Internet <input type="checkbox"/> To allow data transfer from his PC to the Internet
Web Browser	<input type="checkbox"/> To upload and download files <input type="checkbox"/> To display webpages <input type="checkbox"/> To find webpages <input type="checkbox"/> To get connected to the Internet <input type="checkbox"/> To allow data transfer from his PC to the Internet
Telecommunications link	<input type="checkbox"/> To upload and download files <input type="checkbox"/> To display webpages <input type="checkbox"/> To find webpages <input type="checkbox"/> To get connected to the Internet <input type="checkbox"/> To allow data transfer from his PC to the Internet

[3]

Examiner Only	
Marks	Remark



(c) George contacts his **ISP** to see what facilities they provide.

(i) What do the letters **ISP** stand for?

\_\_\_\_\_ [1]

(ii) Tick () **TWO** functions that an ISP would normally provide.

An ISP would	Tick ( <input type="checkbox"/> )
Install software for the user	
Provide an e-mail service	
Provide different bandwidth options	
Maintain the user's PC	

[2]

Examiner Only

Marks Remark

Total Question 9


[Turn over

10 PC GLOBE are a computer company. They have a website. The website address for the company is [www.pcglobe.com](http://www.pcglobe.com)

(a) What do the letters **www** in the website address stand for?

\_\_\_\_\_ [1]

(b) Below is a page containing contact details. This page contains **hyperlinks**.

PC GLOBE	
<b>Welcome to PC GLOBE</b>	
Home	Our Mission
About Us	To meet the needs of all our customers and provide an efficient service
Product List	
Calendar	
Employee List	
<b>Contact Information</b>	
<b>Telephone</b>	028 990 300001
<b>Fax</b>	028 990 300000
<b>Postal Address</b>	
38 Long Road, Newtonards, Belfast	
<b>Email</b>	
General Information <a href="mailto:Margaret@pcglobe.com">Margaret@pcglobe.com</a>	
Sales <a href="mailto:Robert@pcglobe.com">Robert@pcglobe.com</a>	
	

(i) What is a **hyperlink**?

\_\_\_\_\_  
 \_\_\_\_\_ [1]

(ii) List **ONE** piece of information on the webpage shown which is likely to be a hyperlink.

\_\_\_\_\_ [1]

Examiner Only

Marks Remark

Total Question 10

**BLANK PAGE**  
**(Questions continue overleaf)**



**BLANK PAGE**  
**(Questions continue overleaf)**

- 12 RW Hairdresser Supplies sell electrical equipment. The manager creates a spreadsheet to calculate the profit from the sales in the store each month. An example for May 2010 is included below.

	A	B	C	D	E	F	G
1							
2	<b>RW Hairdresser Supplies</b>						
3	DATE	1st-31st May					
4							
5	Stock No	Description	Price	Quantity Sold	Sales Total	Percentage Profit	Profit (£)
6	CC01	Deep Conditioner	£4.00	200	£800.00	10%	£80.00
7	CC02	Blonde Shampoo	£5.00	500	£2,500.00	25%	£625.00
8	CC03	Heated Rollers	£41.00	150	£6,150.00	25%	£1,537.50
9	KE03	GHD Straighteners	£99.00	100	£9,900.00	15%	£1,485.00
10	TO67	RM Straighteners	£54.00	55	£2,970.00	15%	£445.50
11	TV14	IconicRW Hair Gel	£6.00	450	£2,700.00	25%	£675.00
12	TV35	IconicRW Mousse	£4.99	200	£998.00	30%	£299.40
13	DP01	IconicRW Hairspray	£4.99	300	£1,497.00	25%	£374.25
14	BR01	GHD Curling Irons	£75.00	50	£3,750.00	20%	£750.00
15	EC10	Vent Hairbrush	£7.99	100	£799.00	10%	£79.90
16	DI23	Round Curling Brush	£8.99	25	£224.75	25%	£56.19
17				Total	£32,288.75		£6,407.74

- (a) The text in *Row 2* has been centred. State **ONE** other way in which the cells in *Row 2* have been formatted.

\_\_\_\_\_ [1]

- (b) How has the **Price** column been formatted?

\_\_\_\_\_ [1]

Examiner Only	
Marks	Remark

- (c) The manager has used a formula to calculate the profit for the **Vent Hairbrush**. Tick () the correct formula used.

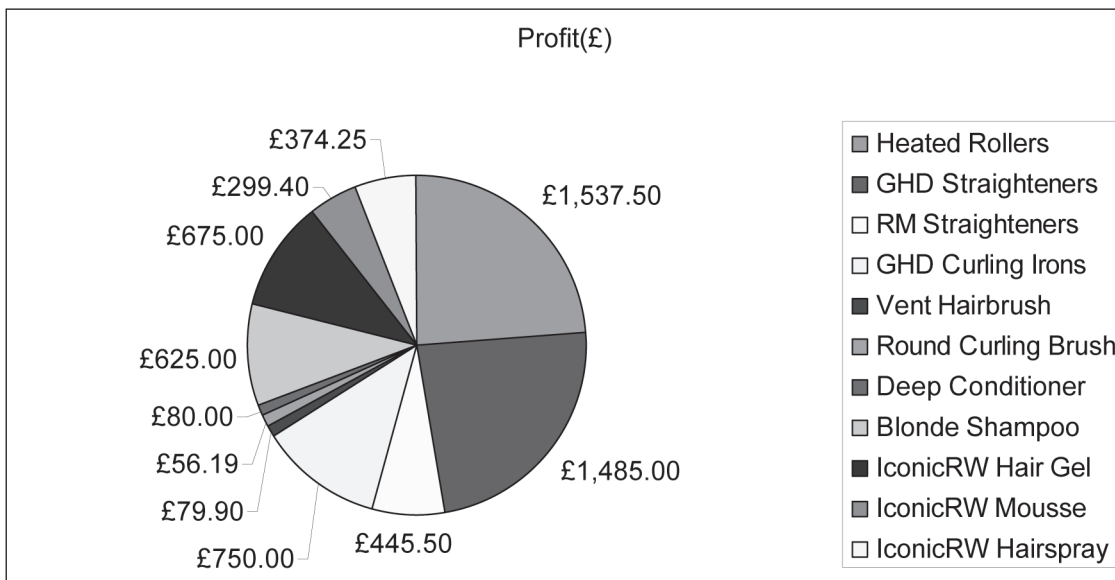
Formula	Tick ( <input type="checkbox"/> )
=E15*F15	
=E15+F15	
=C15*D15	

[1]

- (d) Write down the **cell reference** for the total sales figure for May.

\_\_\_\_\_ [1]

- (e) The manager has created the following chart.



- (i) Give the **cell references** of the cell ranges used to create the graph.

\_\_\_\_\_ [1]

\_\_\_\_\_ [1]

- (ii) Which item has made the **most profit**?

\_\_\_\_\_ [1]

Examiner Only

Marks Remark

Total Question 12

[Turn over





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**(Questions continue overleaf)**



14 Anthony runs “Electronic Supermarket” and is creating a letterhead for his business.

Here is the original image Anthony used.



(a) Look at the images below and select **one** word **from the list** which best describes what effect has been applied to the image in each case. *(Use each word only once.)*

**Flip    Resize    Crop    Rotate**

Image	Effect
	
	

Examiner Only	
Marks	Remark



[4]

Examiner Only

Marks

Remark

- (b) Anthony has bought notebook computers for his employees who travel around Northern Ireland. Here is part of the specification of the computer.

Memory Size	3 GB
Hard Drive Capacity	250 GB
CD/DVD Drive	One
Screen Size/Type	11.6"
TV-out	YES
Wireless Enabled	YES
Battery life (up to)	8 hours
Weight	1.58 kg



© iStockphoto/Thinkstock

Which feature would be most suitable for doing each of the following tasks. Tick () one in each row.

Task	TV-Out	Hard Disk	Optical Drive	Wireless Enabled
Connecting to the wireless network				
Installing new software				
Connecting to a TV				
Storing coursework files				

[4]

Examiner Only

Marks Remark

(c) Why are each of the following useful to the employees who travel around Northern Ireland?

(i) Battery life (up to) 8 hours.

---



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[1]

(ii) Weight 1.58 kg.

---



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[1]

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**THIS IS THE END OF THE QUESTION PAPER**

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Examiner Only	
Marks	Remark
Total Question 14	





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