



Rewarding Learning

General Certificate of Secondary Education
2011

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Candidate Number

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StudentBounty.com

Information and Communication Technology

Short Course

Paper 1
Foundation Tier



G5301

[G5301]

MONDAY 13 JUNE, AFTERNOON

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	
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8	
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10	
11	
12	
13	
14	
QWC	

Total Marks	
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7015

Examiner Number

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J U N 1 1 G 5 3 0 1

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

1 (a) A virus is:

- A Software designed to protect the computer
- B Software designed to damage the computer
- C Hardware designed to damage the computer
- D Hardware designed to protect the computer

Answer _____ [1]

(b) The law designed to protect computers from unauthorised access is:

- A The Computer Management Act
- B The Computer Misuse Act
- C The Data Misuse Act
- D The Data Management Act

Answer _____ [1]

(c) The law designed to protect personal data and information is:

- A The Data Protection Act
- B The Data Security Act
- C The Information Protection Act
- D The Information Security Act

Answer _____ [1]

Examiner Only	
Marks	Remark



(d) Which statement is **FALSE** about **flash memory**?

- A It is used in memory sticks
- B It cannot be erased
- C It is used in mobile phones
- D It has no moving parts

Answer _____ [1]

(e) The **clipboard** on a computer:

- A Stores data when the computer is switched off
- B Stores data for the operating system
- C Stores data when it is being copied
- D Stores data when it is being printed

Answer _____ [1]

(f) Web pages:

- A Are written using HTML and may contain hyperlinks
- B Are written using HTTP and may contain hyperlinks
- C Can only be viewed online whilst connected to the Internet
- D Cannot be sent as attachments

Answer _____ [1]

Examiner Only	
Marks	Remark

[Turn over



(g) E-commerce is:

- A** Using ICT to manage sales and orders
- B** Communicating with customers via the Internet
- C** The buying and selling of goods and services via the Internet
- D** Using networks to link stores electronically

Answer _____ [1]

(h) Text-wrapping is:

- A** When text is placed behind images on a printed document
- B** When text scrolls along the top of a web page when it is loaded
- C** When animated text enters a slide on a presentation
- D** When text flows automatically around a graphic

Answer _____ [1]

(i) Refining the search in a search engine will:

- A** Increase the number of web pages returned in a search
- B** Reduce the number of web pages returned in a search
- C** Lead to web pages automatically being loaded onto the user's screen
- D** Provide increased security for the user when they are using the Internet

Answer _____ [1]

Examiner Only	
Marks	Remark



(j) TFT is a type of:

- A** Keyboard
- B** Printer
- C** Monitor
- D** Storage

Answer _____ [1]

Examiner Only	
Marks	Remark
Total Question 1	

7015

[Turn over



0 5

- 2 Mrs Maxwell is taking 15 pupils on a trip to London. She has prepared the following spreadsheet showing the costs.

	A	B	C	D	E	F	G
1	London Trip Costs						
2	ITEM	Quantity	Cost	Total Cost	% Discount	Discount £	Total Payable
3	Airporter Bus Ticket	15	£ 20.00	£ 300.00	10%	£ 30.00	£ 270.00
4	Flight Ticket	15	£ 45.00	£ 675.00	5%	£ 33.75	£ 641.25
5	Stansted Express Ticket	15	£ 20.00	£ 300.00	10%	£ 30.00	£ 270.00
6	Wizard of Oz Ticket	10	£ 46.00	£ 460.00	15%	£ 69.00	£ 391.00
7	National Museum Ticket	5	£ 5.00	£ 25.00	5%	£ 1.25	£ 23.75
8	Globe Theatre Ticket	12	£ 18.00	£ 216.00	10%	£ 21.60	£ 194.40
9	Hotel Cost	15	£150.00	£2,250.00	10%	£225.00	£2,025.00
10			£304.00	£4,226.00		£410.60	£3,815.40

- (a) Apart from the use of bold, how have the cells in *row 1* been formatted?

_____ [1]

- (b) Below is a section of the spreadsheet. Enter the **THREE** formulae you would expect to find in the spaces provided.

	A	B	C	D	E	F	G
1	London Trip Costs						
2	ITEM	Quantity	Cost	Total Cost	% Discount	Discount £	Total Payable
3	Airporter Bus Ticket	15	£20.00		10%		
				[1]		[1]	[1]

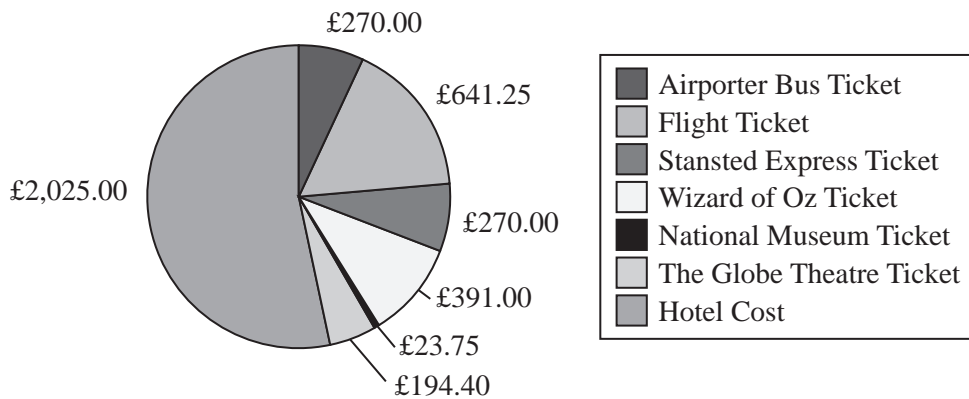
7015

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0 6

- (c) The following chart has been produced summarising the costs of the London trip.



- (i) List the **cell references** of the two cell ranges used to produce the chart.

Cell range 1 _____

Cell range 2 _____ [2]

- (ii) List **ONE** piece of information that Mrs Maxwell could get from the chart.

_____ [1]

Examiner Only

Marks Remark

Total Question 2

[Turn over



- 3 John is a Year 8 student. He is learning about email in the school. Below is part of an email window.

Examiner Only	
Marks	Remark

The screenshot shows an email composition window with the following elements:

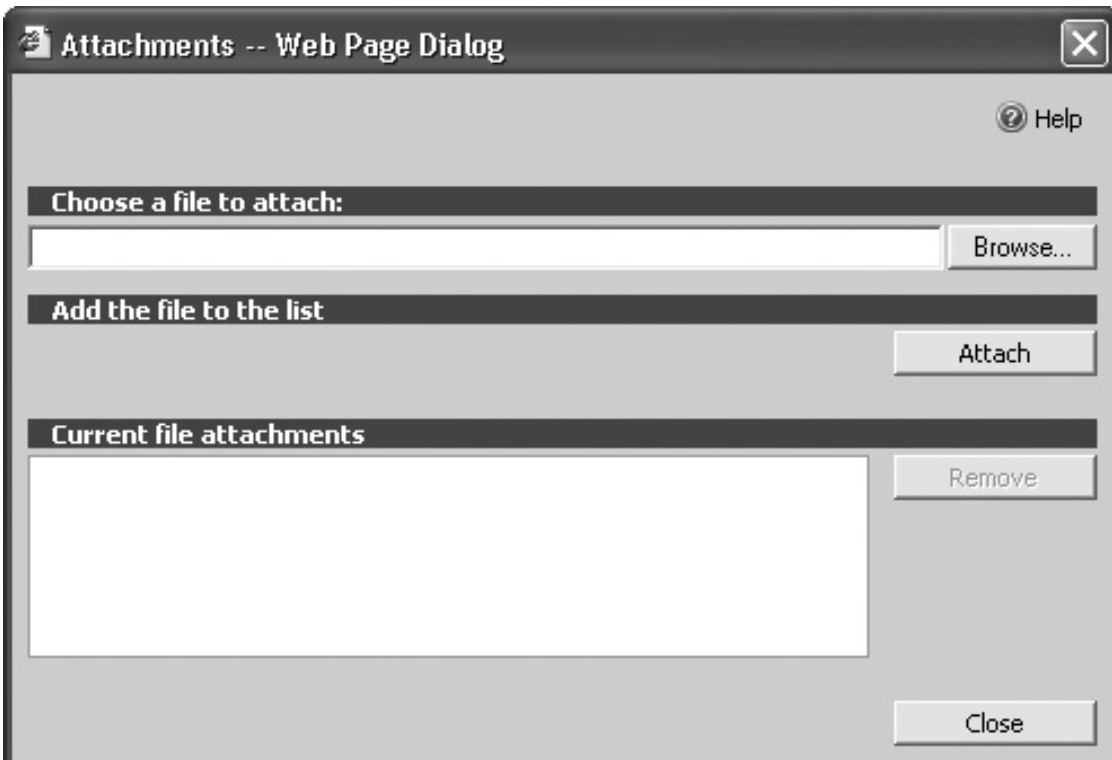
- Menu bar: Send, Print, Reply, Reply All, Forward, Attach, Insert, Options..., Help
- To... field
- Cc... field
- Bcc... field
- Subject: field
- Attachments: field
- Rich text editor toolbar: Normal (dropdown), Font color (A), Times New Roman (font dropdown), 12 (font size dropdown), Bold (B), Italic (I), Underline (U), Bulleted list, Numbered list, Indent, Outdent, Undo, Redo, Print, Refresh
- Large empty text area for the email body.

- (a) Explain to John the difference between **Cc** and **Bcc**.

[2]



- (b) John wants to make use of attachments. Describe how he can do this by referring to the **Browse** and **Attach** buttons in the window below.



Browse _____

Attach _____

_____ [2]

Examiner Only	
Marks	Remark
Total Question 3	

[Turn over



4 An accountancy firm has bought software for its new networked computers.

(a) In the table below, tick (✓) **ONE** piece of **Software** which would be most appropriate to carry out the **Task** stated.

Task	Software
Perform financial calculations on customer data.	Select ONE only <input type="checkbox"/> Database <input type="checkbox"/> Spreadsheet <input type="checkbox"/> Desktop Publishing <input type="checkbox"/> Email
Store customer records without repeating data.	Select ONE only <input type="checkbox"/> Database <input type="checkbox"/> Spreadsheet <input type="checkbox"/> Desktop Publishing <input type="checkbox"/> Email
Create a flyer to advertise the company.	Select ONE only <input type="checkbox"/> Database <input type="checkbox"/> Spreadsheet <input type="checkbox"/> Desktop Publishing <input type="checkbox"/> Email

[3]

Examiner Only	
Marks	Remark



5 Catriona has bought a new computer. Some of the details about the computer are listed below.

Examiner Only	
Marks	Remark

Processor	Intel® Pentium® Processor E5300 – 2.6 GHz – 800 MHz
Operating System	Genuine Windows® 7 Home Premium 64-bit
RAM	2 GB
Screen resolution	1366 × 768
Screen size	18.5"
Hard drive	320 GB 7200 rpm
Optical disk drive	DVD writer
Memory card reader	Yes
USB	6 USB 2.0 ports (2 in front)
Modem/Ethernet	Ethernet RJ-45 port
Wi-Fi	Yes
Bluetooth	No

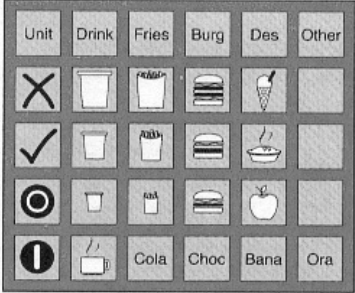


7015



1 2

6 Input and output devices are important parts of any computer system.

(a) Name the input devices shown below and explain **ONE** way in which they can be used to input data into a computer system.

Device	Device Name	Use
<p>(i)</p>  <p>© http://www.teach-ict.com</p>	[1]	[1]
<p>(ii)</p>  <p>©iStockphoto/Thinkstock</p>	[1]	[1]
<p>(iii)</p>  <p>©Hemera/Thinkstock</p>	[1]	[1]

Examiner Only

Marks Remark



- (b) Fill in the blank spaces using words from the list below to complete the information about printers. (Use each word only once.)

HIGH DOT MATRIX NON IMPACT TONER

A laser printer is a type of _____ printer. It produces
 _____ quality printouts and uses _____ to print
 onto paper. A _____ printer can produce carbon copies
 because the print head makes contact with the paper. [4]

Examiner Only	
Marks	Remark
Total Question 6	



7 Jack's English teacher has set up a video conference with an international poet and the class.

(a) Apart from a computer, list **TWO** pieces of hardware that his teacher will require for the video conference.

1. _____

2. _____ [2]

(b) State **TWO** advantages of using video conferencing in this situation.

1. _____

2. _____

_____ [2]

(c) What impact could running the video conference have on the speed of the Internet for other users?

_____ [1]

Examiner Only

Marks Remark

Total Question 7



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(Questions continue overleaf)



8 Aislinn has created a database for her teacher to hold details of all of the pupils being awarded prizes at her school Prize Day.

(a) Use the words below to complete the following sentences. (Use each word only once.)

form record organised

A database is an _____ collection of information.

Each entry about a person or item in a database is called a

_____.

Data can be input into a database using a _____. [3]

Part of the database Aislinn created is shown below.

Prize ID	Prize Name	Surname	First Name	Year Group	Attending?
1	ICT Prize	Irwin	Jane	8	<input checked="" type="checkbox"/>
2	Maths Prize	Baird	Jake	8	<input checked="" type="checkbox"/>
3	English Prize	Coleman	Brian	8	<input type="checkbox"/>
4	Science Prize	Groves	Simon	8	<input checked="" type="checkbox"/>
5	Excellent Attendance	Smith	Leisa	8	<input checked="" type="checkbox"/>
6	Music Prize	Brown	Emily	8	<input checked="" type="checkbox"/>
7	Athletics Prize	Phillips	Alexander	8	<input checked="" type="checkbox"/>
8	Best Grades	Thomas	Cathy	8	<input type="checkbox"/>
9	Effort	Stanley	Peter	8	<input type="checkbox"/>
10	ICT Prize	Hicks	Myles	9	<input type="checkbox"/>
11	Maths Prize	Dunlop	Molly	9	<input checked="" type="checkbox"/>
12	English Prize	Irwin	Charlie	9	<input checked="" type="checkbox"/>
13	Science Prize	Morris	Joseph	9	<input checked="" type="checkbox"/>
14	Excellent Attendance	Mains	John	9	<input type="checkbox"/>
15	Music Prize	Knowles	Michael	9	<input checked="" type="checkbox"/>
16	Athletics Prize	Peters	Petra	9	<input type="checkbox"/>
17	Best Grades	McDowell	Chris	9	<input checked="" type="checkbox"/>
18	Effort	Cowan	Eimer	9	<input type="checkbox"/>

Examiner Only

Marks Remark



(b) (i) Explain what is meant by a **key field**.

_____ [1]

(ii) Suggest a suitable key field for the data shown in the table above.

_____ [1]

Question 8 continues overleaf

Examiner Only	
Marks	Remark



Aislinn creates the following report for her teacher.

Examiner Only

Marks Remark

Prize Day 2011

<i>Year Group</i>	<i>Surname</i>	<i>First Name</i>	<i>Prize ID</i>	<i>Prize Name</i>	<i>Attending?</i>
8	Baird	Jake	2	Maths Prize	<input checked="" type="checkbox"/>
	Brown	Emily	6	Music Prize	<input checked="" type="checkbox"/>
	Coleman	Brian	3	English Prize	<input type="checkbox"/>
	Groves	Simon	4	Science Prize	<input checked="" type="checkbox"/>
	Irwin	Jane	1	ICT Prize	<input checked="" type="checkbox"/>
	Phillips	Alexander	7	Athletics Prize	<input checked="" type="checkbox"/>
	Smith	Leisa	5	Excellent Attendance	<input checked="" type="checkbox"/>
	Stanley	Peter	9	Effort	<input type="checkbox"/>
	Thomas	Cathy	8	Best Grades	<input type="checkbox"/>
9	Cowan	Eimer	18	Effort	<input type="checkbox"/>
	Dunlop	Molly	11	Maths Prize	<input checked="" type="checkbox"/>
	Hicks	Myles	10	ICT Prize	<input type="checkbox"/>
	Irwin	Charlie	12	English Prize	<input checked="" type="checkbox"/>
	Knowles	Michael	15	Music Prize	<input checked="" type="checkbox"/>
	Mains	John	14	Excellent Attendance	<input type="checkbox"/>
	McDowell	Chris	17	Best Grades	<input checked="" type="checkbox"/>
	Morris	Joseph	13	Science Prize	<input checked="" type="checkbox"/>
	Peters	Petra	16	Athletics Prize	<input type="checkbox"/>

- (c) In the table below, tick (✓) **ONE** statement that is **TRUE** about the formatting of this report.

Formatting	Tick (✓)
The report is grouped according to Attending	
The report is grouped according to Year Group	
The report is sorted according to Surname	

[1]



9 A local supermarket is trying to decide if they should install a new **EPOS** system.

(a) What does **EPOS** stand for?

_____ [1]

(b) Name **TWO** output devices used with an EPOS system.

1. _____ [1]

2. _____ [1]

(c) List **TWO** disadvantages **to the supermarket** of installing an EPOS system.

1. _____ [1]

2. _____ [1]

EPOS systems scan barcodes on products when purchases are made.

(d) List **ONE** piece of data held on a barcode.

_____ [1]

Examiner Only	
Marks	Remark
Total Question 9	



10 Banks make widespread use of ICT today.

Customers can manage their accounts online or using telephone banking.

- (a) In the table below, tick (✓) **TWO** tasks a customer can carry out using their online bank account.

Online banking	Tick (✓)
Transfer money	
Withdraw money	
Pay bills	
Print cheques	

[2]

- (b) Give **ONE** reason why not all customers would like to manage their accounts in this way.

_____ [1]

Customers use a **PIN** to keep their account secure when using an ATM.

- (c) What do the letters **PIN** stand for?

_____ [1]

Banks can use a magnetic stripe or a micro chip to store details on customers' bank cards.

- (d) List **TWO** differences between **magnetic stripe** cards and cards using **micro chips**.

1. _____ [1]

2. _____ [1]

Examiner Only




Marks Remark

Total Question 10



11 Sarah has bought a new PC but wants to know more about the different storage media she can use.

(a) State whether each of the media in the table below is **Magnetic** or **Optical** storage media. The first is completed for you.

Media	Magnetic or Optical?
 <p data-bbox="384 712 603 741">©iStockphoto/Thinkstock</p>	<p data-bbox="932 573 1070 611">Magnetic</p>
 <p data-bbox="391 994 609 1023">©iStockphoto/Thinkstock</p>	
 <p data-bbox="392 1305 611 1335">©iStockphoto/Thinkstock</p>	

[2]

Examiner Only

Marks

Remark



- (b) List the following storage devices in order of speed of data retrieval from fastest to slowest.

	hard disc	main memory	CD ROM
Fastest	1. _____ [1]		
↓	2. _____ [1]		
Slowest	3. _____ [1]		

Sarah's PC has a 160 GB hard disc, 2 GB of RAM and 1 GB of **cache memory**.

- (c) Name **ONE** suitable storage device which she could use to backup its contents.

_____ [1]

Examiner Only	
Marks	Remark
Total Question 11	



12 David needs to record data about temperature and rainfall.

(a) Name **ONE** sensor he would need to use in this experiment.

_____ [1]

(b) Give **ONE** advantage of using a computer to record data in this way.

_____ [1]

David's greenhouse uses a computerised control system with feedback.

(c) In the table below, tick (✓) the statement which is correct about how **feedback** works.

Definition	Tick (✓)
The input to the system affects the output values	
The output from the system affects the input values	
The output values are never affected	
The input values are never affected	

[1]

Examiner Only

Marks Remark

Total Question 12



13 A national newspaper uses a LAN (Local Area Network) with an Internet connection.

(a) List **TWO** advantages to the newspaper of using a **LAN**.

1. _____

2. _____ [2]

Staff at the newspaper can also use the WWW (World Wide Web) to research articles they are writing.

(b) Explain the difference between the **Internet** and the **WWW**.

_____ [2]

The Internet is an example of a WAN (Wide Area Network).

(c) List **TWO** differences between a **LAN** and a **WAN**.

1. _____

2. _____ [2]

The newspaper also uses the LAN to store personal details about employees.

(d) Name **ONE** method of security they might employ to ensure data on the LAN is kept secure from internal users.

_____ [1]

Examiner Only

Marks Remark

Total Question 13

[Turn over



- 14 Using the terms in the list below, choose **ONE** term that best matches the definition in the left-hand column (all words in the list will be used).

Template **Cursor** **History** **Zoom**
Mail-merge **Export** **Pixel** **URL**
Absolute **Digital**

Definition	Term
A web address which when typed into the address bar of a browser will take the user to a website	
A document that can be edited and reused over and over again	
The smallest element on a VDU that can be edited	
Allows an area of the screen to be seen more closely	
Data in a format known as binary, which consists of two digits 0 and 1	
An object which tracks the user's screen position	
A spreadsheet cell reference that does not change when copied	
A button on a web browser which shows the websites that have been visited	
Using a database and word processor to create personalised documents	
To convert a document into a format for use in another package	

[10]

Examiner Only	
Marks	Remark
Total Question 14	
Quality of Written Communication	



THIS IS THE END OF THE QUESTION PAPER



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