

Centre Number						Candidate Number				
Surname										
Other Names										
Candidate Signature										

For Examiner's Use	
Examiner's Initials	
Question	Mark
1	
2	
3	
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6	
7	
8	
9	
TOTAL	



General Certificate of Secondary Education
January 2012

Information and Communication Technology (Short Course)

45204

Written Paper

Friday 13 January 2012 9.00 am to 10.00 am

You will need no other materials.
You may use a calculator.

Time allowed

- 1 hour

Instructions

- Use black ink or black ball-point pen.
- Fill in the boxes at the top of this page.
- Answer **eight** questions.
- Answer **all** questions in Sections A and B. In Section C, answer **either** Question 8 **or** Question 9, which should be answered in continuous prose. In this question you will be marked on your ability to:
 - use good English
 - organise information clearly
 - use specialist vocabulary where appropriate.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- Do all rough work in this book. Cross through any work you do not want to be marked.

Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 60.
- You are reminded of the need for good English and clear presentation in your answers.



J A N 1 2 4 5 2 0 4 0 1

Section A

Answer **all** questions in the spaces provided.

1

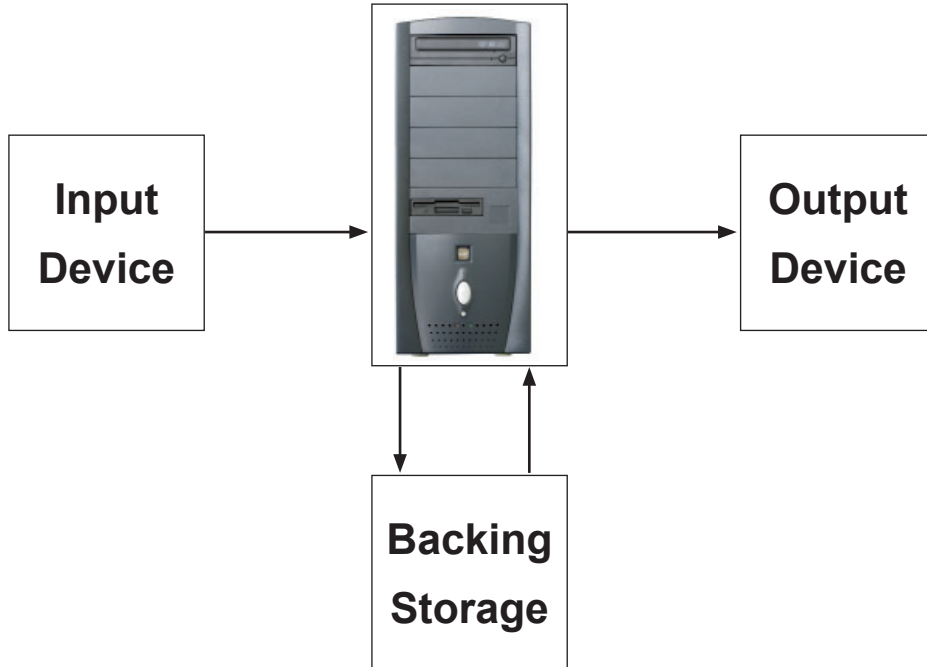


Image © Thinkstock

The diagram above represents the layout of a general purpose home desktop computer.

1 (a) Name **two** input devices that you would expect to be used with a general purpose home desktop computer.

Input device 1

Input device 2

(2 marks)

1 (b) Name **two** output devices that you would expect to be used with a general purpose home desktop computer.

Output device 1.....

Output device 2.....

(2 marks)



1 (c) A home desktop computer will use software as well as hardware. What is meant by the terms hardware and software?

Hardware

.....

Software

.....

(2 marks)

6

2 (a) For each row of the table below, choose the letter from **A, B, C, D, E** or **F** which best matches the description.

- A** Broadband **D** File server
- B** Dial-up modem **E** Mobile device
- C** e-mail server **F** Print server

	Description of network device	Letter
(i)	A computer that provides workstations on a network with controlled access to a range of shared resources	
(ii)	A device that enables a computer to transmit data over telephone lines	
(iii)	A fast communications network in which the bandwidth can be divided and shared by multiple simultaneous signals	

(3 marks)

2 (b) What does the abbreviation LAN stand for?

.....

(1 mark)

2 (c) Describe the difference between a LAN and a WAN.

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.....

(2 marks)

6

Turn over ▶



- 3 As part of a school Enterprise Day, a group of students are planning to sell a range of printed T-shirts. Below is a spreadsheet that they have set up to help them model possible profit or loss.

	A	B	C	D
1	12/02/2012			
2				
3	Expenditure			
4		Unit Cost	Number bought	Cost
5	T-shirt (small)	£2.00	50	£100.00
6	T-shirt (medium)	£2.50	100	£250.00
7	T-shirt (large)	£3.00	150	£450.00
8	Total		300	£800.00
9				
10	Cost of printing each T-shirt (any size)			£1.00
11				
12		Total spent		£1,100.00
13				
14	Income			
15		Selling price	Number sold	Cost
16	T-shirt (small)	£4.00	40	£160.00
17	T-shirt (medium)	£4.50	80	£360.00
18	T-shirt (large)	£5.00	125	£625.00
19				
20		Total income		£1,145.00
21				
22		Profit/Loss		£45.00

- 3 (a) Which cell contains the text **Income**?

(1 mark)

- 3 (b) Tick **one** box to show which word describes the data in cell A1.

	Tick one box only
Currency	
Date	
Formula	
Number	

(1 mark)



3 (c) Tick **one** box to show which of the following is the formula used in the cell D5.

	Tick one box only
=B5+C5	
=B5-C5	
=B5*C5	
=B5/C5	

(1 mark)

3 (d) Which **one** of the following is **not** a common function available within a spreadsheet?

	Tick one box only
AVERAGE	
AVERAGEUP	
COUNT	
RANK	

(1 mark)

3 (e) Explain the difference between the ROUND and the ROUNDUP functions available within spreadsheets. You may find it helpful to give examples.

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(2 marks)

6

Turn over for the next question

Turn over ▶



4 H&L Games rents computer games to its members. They have produced the data capture form below to collect information from their members. They planned to produce a professional looking form that was easy to use.

H&L Games

Please complete this registration form and send it back to the address given below.

Last Name

First name

Address 1

Address 2

Postcode

Telephone Number

Title

Favourite types of game

4 (a) Give **three** reasons why this data capture form is not fit for purpose.

Reason 1

.....

Reason 2

.....

Reason 3

.....

(3 marks)



- 4 (b)** Tick **one** box to show which method of data capture would be the most suitable for collecting information about the games as they are rented out.

	Tick one box only
Bar codes	
Chip and Pin	
Questionnaire	
Voice recognition	

(1 mark)

- 4 (c)** H&L Games is planning to send details of the latest games available to its members electronically. Give **one** way in which these details could be sent.

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(1 mark)

5

Turn over for the next question

Turn over ▶



5 InFashion is a shop selling a wide range of clothes and accessories. They are planning to computerise their existing stock filing system. The following are some of the stages in the system life cycle used in the production of the new system.

Feasibility study	Testing	Documentation
Analysis	Implementation	Evaluation
Design	User training	Maintenance

5 (a) At which of these stages does each of the following take place?

5 (a) (i) Collecting information about how the existing system works

.....
(1 mark)

5 (a) (ii) Producing a plan for testing the system

.....
(1 mark)

5 (a) (iii) Entering test data into the new stock filing system

.....
(1 mark)

5 (a) (iv) Reviewing the effectiveness of the system

.....
(1 mark)

5 (a) (v) Listing the desired outcomes and performance criteria

.....
(1 mark)

5 (b) Explain what is meant by the system life cycle being an 'iterative review process'.

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(2 marks)

7



Turn over for Section B

**DO NOT WRITE ON THIS PAGE
ANSWER IN THE SPACES PROVIDED**

Turn over ▶



Section B

Answer **all** questions in the spaces provided.

- 6** A health club stores information about its members in a database table. Part of the database table is shown below.

Member Code	Last Name	Other Name	Gender	House Number	Postcode	Date of Birth	Member Fee
GY0340	Dobson	Jon	M	37	LN1 7BZ	22/12/1949	£21
GY0789	Smith	Peter	M	4	LN3 1CC	14/08/1985	£31
GY0986	Adams	David	M	45	LN3 1BL	21/01/1976	£31
GY1003	Adams	Ann	F	45	LN3 1BL	04/08/1996	£19
GY1029	Hall	Sue	F	17	LN2 7BB	31/12/1997	£19
GY1100	Chang	Liu	F	9	LN1 7AD	09/11/1990	£31
GY1104	Kelly	Jane	F	33	LN2 8CD	28/06/1980	£31
GY1111	Quinn	Alex	M	122	LN5 2CH	14/07/1998	£12
GY1123	Vento	Alan	M	1	LN6 1GN	10/11/1984	£31
GY1198	Datta	Daniel	M	49	LN9 6FC	12/02/1956	£21
GY1201	Datta	Vera	F	49	LN9 6FC	19/04/1958	£21

- 6 (a)** How many records are shown in this database table? (1 mark)

- 6 (b)** Why would the **Last Name** field **not** be suitable to use as the key field?

.....

 (1 mark)

- 6 (c)** Write the **Member Code(s)** of the members whose records are selected using the following search criteria:

- 6 (c) (i)** Search criteria: **Postcode** equals LN3 1BL

Record(s) selected
 (1 mark)

- 6 (c) (ii)** The * used in the following search criteria is a wildcard.

Search criteria: **Last Name** equals D*

Record(s) selected
 (1 mark)



7 (b) Describe what is meant by a social networking site.

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(2 marks)

7 (c) Describe a range of software and hardware features that are used to help people with disabilities to access ICT systems.

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(5 marks)

9



Section C

You should answer **either** Question 8 **or** Question 9, but **not both**.

You will be marked on your ability to use good English, to organise information clearly and to use specialist vocabulary where appropriate.

EITHER

8 Discuss how emerging technologies affect the way in which people and organisations operate and work together.

This space is available for planning your answer if you wish to use it.

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Turn over ▶



OR

9 Discuss a range of online hazards. Describe possible methods of avoiding some of these.

This space is available for planning your answer if you wish to use it.

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Turn over ▶



