

Surname		Other Names	
Centre Number		Candidate Number	
Candidate Signature			

For Examiner's Use

General Certificate of Secondary Education
June 2007

**INFORMATION AND COMMUNICATION TECHNOLOGY 3527/F
(SPECIFICATION A) (SHORT COURSE)
Foundation Tier**

F



Tuesday 22 May 2007 1.30 pm to 3.00 pm

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

Time allowed: 1 hour 30 minutes

Instructions

- Use blue or black ink or ball-point pen.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- Answer the questions in the spaces provided.
- Do all rough work in this book. Cross through any work you do not want to be marked.

Information

- The maximum mark for this paper is 80.
- The marks for questions are shown in brackets.
- You are reminded of the need for good English and clear presentation in your answers.

For Examiner's Use			
Question	Mark	Question	Mark
1-7		15	
8		16	
9		17	
10		18	
11		19	
12		20	
13			
14			
Total (Column 1) →			
Total (Column 2) →			
TOTAL			
Examiner's Initials			



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

For Questions 1 to 8, write the letter for each answer in the space given.

1 Which **one** of the following is **not** an input device?

- A Keyboard
- B Scanner
- C Hard disk drive
- D Joystick

Answer

(1 mark)

2 Which **one** of the following is **not** an output device?

- A Screen (VDU)
- B Plotter
- C Laser printer
- D Microphone

Answer

(1 mark)

3 Which **one** of the following is **not** a storage device?

- A Touch sensitive screen
- B Floppy disk drive
- C CD-ROM drive
- D Magnetic tape unit

Answer

(1 mark)

4 Which **one** of the following loses its contents when the computer is switched off?

- A ROM
- B RAM
- C Hard disk
- D Floppy disk

Answer

(1 mark)

5 A search engine is

- A hardware used to help find information on the Internet.
- B software used to help find information on the Internet.
- C hardware used to send e-mails.
- D software used to send e-mails.

Answer

(1 mark)



6 A sports centre stores its members' data on a database. Which **one** of the following is **not** a method used to restrict access to such data?

- A Usernames
- B Passwords
- C Locking doors
- D Merging files

Answer

(1 mark)

7 What does the term 'hard copy' mean?

- A Printed output
- B Output onto a screen
- C Output stored on CD-ROM
- D Information that is never output

Answer

(1 mark)

7

Turn over for the next question



- 8 A university student uses a PC to help plan a budget for the first term. Their first attempt is shown below.

	A	B	C	D	E
1	Weekly Budget				
2					
3	Income	Amount	Weeks	Income per week	
4	Student Loan (per term)	£2100.00	12	£175.00	
5	Monthly allowance from parents	£150.00	4	£37.50	
6	Weekly wage from part-time job	£32.00	1	£32.00	
7					
8	Total Income per week			£244.50	
9					
10					
11	Spending	Amount	Weeks	Spending per week	
12	Rent (paid monthly)	£270.00	4	£67.50	
13	Gas/electric bills (paid monthly)	£50.00	4	£12.50	
14	House bills - food etc (per month)	£250.00	4	£62.50	
15	Books etc for university (per term)	£150.00	12	£12.50	
16	Clothes (per term)	£210.00	12	£17.50	
17	Travel (per term)	£120.00	12	£10.00	
18	Leisure, nights out etc.	£50.00	1	£50.00	
19	Leave in bank for unexpected spending	£100.00	12	£8.33	
20					
21	Total spending per week			£240.83	
22					
23	Money left per week			£3.67	
24					

- (a) Which type of software package has been used to produce this budget plan?

- A Graphics
- B Database
- C Spreadsheet
- D Multimedia

Answer

(1 mark)

- (b) Which cell contains the spending on rent per week?

- A A11
- B B11
- C C12
- D D12

Answer

(1 mark)



(c) Which **one** of the following is the formula used in cell D23?

- A =D21–D8
- B =D8–D21
- C =sum(D2:D12)
- D =D21+D8

Answer

(1 mark)

(d) The cell format in cell A1 is text. What cell format is used in cell C12?

- A Text
- B Currency
- C Number
- D Formulae

Answer

(1 mark)

(e) Which **one** of the following is a **disadvantage** of using this software package to help work out the budget rather than using a calculator, pen and paper?

- A The formulae could be wrong
- B The wrong prices could be input
- C A virus may corrupt the information
- D Multiple printouts could be produced

Answer

(1 mark)

Turn over for the next question

5



9 Phantastic Phones sell mobile phones and accessories.

The manager has produced the leaflet below using word processing software. The leaflet will be given out to people shopping in the High Street.

Phantastic Phones Special Offers

To celebrate the end of our first year in business, we are offering these special deals.

1. Buy any new phone in May and get 25% off the marked price.
2. Take out a new monthly contract with us and get the first three months free.

To reserve your phone or to get more details, phone Steve on 057 117 11700

- (a) Tick **two** boxes to show which of the following features of a word processing package could be used to improve the **layout** of the leaflet.

	Tick two boxes only
Line spacing	
Search facility	
Mail-merging	
Centre	
Hyperlink	

(2 marks)

- (b) Give **two** additional features of a word processing package that could be used to improve the **presentation** of the leaflet.

Feature 1

Feature 2

(2 marks)

- (c) Give **one** feature of the software that could be used to check the accuracy of the text used in the leaflet.

Feature

(1 mark)



- (d) The manager wants to use the word processing package to rearrange the leaflet so that the second special deal comes before the first.
Using the list given below, write down the steps needed to do this.

Paste

Cut

Highlight the second special deal

Position the cursor just above the first special deal

Step 1	
Step 2	
Step 3	
Step 4	

(2 marks)

7

Turn over for the next question



10 In the space below, **complete** the design of a Data Capture Form for people applying to join a local library. Care should be taken to include suitable fields and enough space to fill in their details.

(6 marks)



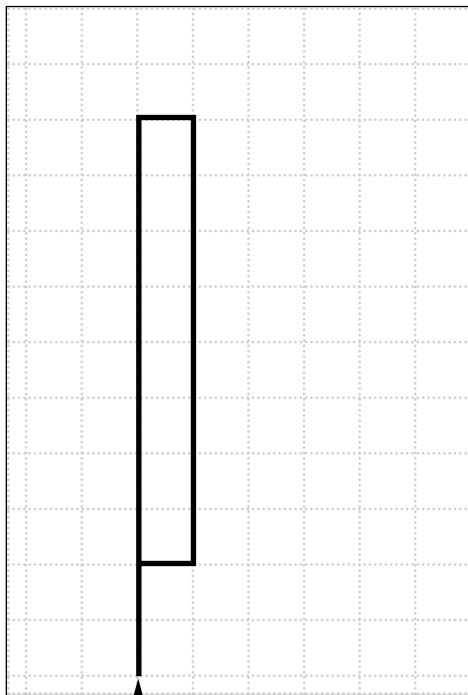
- 11** A computer system controls a robot turtle. At the front, the turtle holds a pen. When the turtle moves, the pen leaves a line on the paper beneath it.
Examples of the commands which are used to move the turtle are as follows:

FORWARD 5 would move the turtle forward 5 complete squares.

BACKWARD 5 would move the turtle backward 5 complete squares.

RIGHT 90 would turn the turtle right through an angle of 90 degrees.

- (a) Write down the commands needed to draw this shape.



Start here

Commands

.....

.....

.....

.....

.....

.....

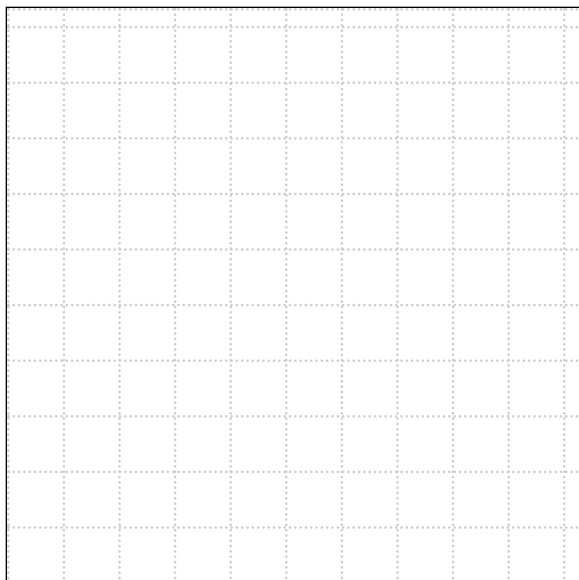
.....

.....

.....

(3 marks)

- (b) On the grid, draw the shape produced by the commands given below.



Start here

Commands

FORWARD 8

BACKWARD 4

RIGHT 90

FORWARD 5

RIGHT 90

FORWARD 4

BACKWARD 8

(3 marks)

Turn over ▶



12 A school stores information about pupils on a computer system. Data validation is an important part of the processing of pupil information.

(a) Tick **one** box in each part below that best describes how data validation works.

(i) Data validation is the checking of data during

	Tick one box only
output.	
input.	
processing.	

(1 mark)

(ii) The data is checked by

	Tick one box only
hardware.	
software.	
people.	

(1 mark)

(iii) The data is checked to make sure

	Tick one box only
it is totally correct.	
it is reasonable.	
it is spelt correctly.	

(1 mark)

(b) Which one of the following is a method of data validation?

	Tick one box only
Lesson check	
Attendance check	
Presence check	

(1 mark)

(c) Explain how an examination mark could be validated using a range check.

.....

.....

.....

(2 marks)



13 A group of doctors share a surgery that has recently installed a new computer system. There is a PC on each doctor’s desk. A database is about to be purchased on which they plan to store information about their patients.

- (a) Give **two** possible **advantages** to the doctors of using the database to store patient information rather than storing the information on paper.

Advantage 1

.....

Advantage 2

.....

(2 marks)

- (b) The doctors are worried about a virus getting into their computer system. Which **two** of the following best describe what a virus is?

	Tick two boxes only
It is a piece of software	
It is a piece of hardware	
It spreads once installed	
It can infect people	
It always damages data	

(2 marks)

- (c) Give **one** way in which a computer virus may get into the system.

.....

.....

(1 mark)

5

Turn over for the next question



Turn over ▶

- 14 (a) Which **one** of the following best explains the difference between **data** and **information**?

	Tick one box only
Data is only numbers but information has both numbers and text	
Data can be read by computers but information cannot	
Data is raw values but information has a context which adds meaning	

(1 mark)

- (b) Tick **one** box next to **each** item below to show whether it is data or information.

	Data	Information
1345Ry		
Roy is 16 years old		
34/23/2002		

(3 marks)

- 15 An increasing number of supermarket customers are ordering their groceries online.

- (a) Complete each of the sentences below.

- (i) Ordering groceries online starts with a customer placing an order by

	Tick one box only
telephoning the order to the supermarket.	
sending the order by letter to the supermarket.	
sending the order to the supermarket from their PC.	

(1 mark)

- (ii) The customer then usually pays for the groceries by

	Tick one box only
sending a cheque to the supermarket.	
going to the supermarket and paying by cash.	
the supermarket taking the money from their credit card.	

(1 mark)

4



(iii) Finally, the customer receives the groceries by

	Tick one box only
a van from the supermarket delivering them to their house.	
collecting them from the supermarket at an agreed time.	
collecting them from an agreed pickup point near their house.	

(1 mark)

(b) Give **two** advantages to the **customer** of ordering their groceries online.

Advantage 1

.....

Advantage 2

.....

(2 marks)

(c) Give **one** disadvantage to the **customer** of ordering their groceries online.

Disadvantage

.....

(1 mark)

6

Turn over for the next question



Turn over ▶

16 Many companies are becoming aware that using a computer for a long period of time can affect people’s health.

- (a) Back problems are a possible health concern for people using a computer for a long period of time. Which **two** of the following steps could be used to reduce the chances of a back problem?

	Tick two boxes only
Take regular breaks away from the computer	
Only use word processing software	
Have regular eye check-ups	
Use a chair that offers suitable back support	
Do not start work before 8 am	

(2 marks)

- (b) Give **two** other health problems that can occur as a result of people using a computer for long periods of time.

Problem 1.....

Problem 2.....

(2 marks)

4

17 From the list given below, choose which term **best matches** the definition in the left-hand column of the table below. Write your answer in the space provided.

- | | | |
|-------------------|-----------------|-------------|
| back-up copy | data encryption | query |
| calibrate | field | RAM |
| DVD ROM | mail-merging | record |
| data validation | OCR | ROM |
| data verification | OMR | web browser |
| data logging | password | |

Definition	Term which best matches the definition
A copy of data or programs in computer readable form, kept in case the working copy is lost or damaged.	
Inserting fields from a database file into a standard letter to produce personalised letters.	
The collecting and storage of data at regular, fixed intervals over a period of time.	
A method of Data Capture used in some multiple choice examination marking.	

(4 marks)

4



18 A graphic artist specialises in producing the artwork for comics and graphics novels. He uses a PC and a graphics package to produce his images.

(a) Which **three** of the following are important features that you would expect to find in a graphics package?

	Tick three boxes only
Calculating the cost of each page of artwork	
Importing images	
Mail-merging letters	
Reflecting images	
Linked tables	
Extensive search facilities	
Freehand drawing	

(3 marks)

(b) The PC came with a keyboard and mouse. Name **one** other input device that would be needed to help with the production of the artwork.

.....
(1 mark)

(c) The graphic artist has recently upgraded the PC and has installed a 300 Gigabyte hard disk. Which **one** of the following explains why such a large hard disk is needed for this application?

	Tick one box only
Hard disk are very cheap	
Graphics files are large	
A word processor can also be used	
Colour as well as black and white is used	

(1 mark)

(d) Finished artwork is sent to a publisher for approval. It is sent both as a high resolution colour hardcopy and in digital format. Describe how the publisher could be sent the artwork in a digital format.

.....
.....
.....
(2 marks)



- 19** A video shop stores information about its customers in a database table.
As a data user, the video store must register under the 1998 Data Protection Act.

- (a) Tick **three** boxes to show which of the following are responsibilities of the video store as a data user.

	Tick three boxes only
Information must not be looked at by the video shop staff	
Information must not be excessive for the purpose	
Information must not be transferred to countries outside the European Union	
Information must not contain the name of the customer	
Information must be changed at the request of the customer	
Information must be obtained fairly/lawfully	

(3 marks)

- (b) Part of the customer database table is given below.

ID Number	Surname	First name	House No.	Postcode	Date of Birth
0021	Jones	Jon	6	ZZ23 2KJ	20/11/80
0034	Smith	Anne	78	ZZ20 3GT	12/08/75
0156	Ali	Ahmed	17	ZZ16 1KN	06/02/82
0234	Collins	Sarah	2	ZZ23 4PH	31/01/70
0452	Chan	Michael	113	ZZ12 8PR	15/10/84

- (i) How many records are shown in this database table?

Answer

(1 mark)

- (ii) Which is the key field in this database table?

.....

(1 mark)

- (iii) Which **one** of the following is the best definition of a key field?

	Tick one box only
A key field must be the first field in a database table	
A key field must be a combination of letters and numbers	
A key field must be unique in a database table	

(1 mark)



- (c) As well as the customer table, the video store uses two other linked tables. Name **one** other table it would be sensible for them to use.

.....
(1 mark)

- (d) Give **one** reason why the video store should link tables together.

.....
.....
(1 mark)

Turn over for the next question

8



Turn over ▶

20 Applications software is designed to carry out user-related tasks. Which applications software would be the **best** to use for the following tasks?

(a) Produce an assignment for English in year eleven.

.....
(1 mark)

(b) Create a website for a school.

.....
(1 mark)

(c) Keep track of the accounts for a small business.

.....
(1 mark)

(d) Produce an advertising leaflet for a Pizza takeaway.

.....
(1 mark)

(e) Store and process customer details in a Video shop.

.....
(1 mark)

END OF QUESTIONS

5



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