

Surname		Other Names	
Centre Number		Candidate Number	
Candidate Signature			

For Examiner's Use

General Certificate of Secondary Education
June 2009



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

F

Tuesday 19 May 2009 1.30 pm to 3.00 pm

<p>You will need no other materials. You may use a calculator.</p>

Time allowed: 1 hour 30 minutes

Instructions

- Use black ink or black ball-point pen.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- You must answer the questions in the spaces provided. **Answers written in margins or on blank pages will not be marked.**
- 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.

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Question	Mark	Question	Mark
1		10	
2		11	
3		12	
4		13	
5		14	
6		15	
7		16	
8		17	
9		18	
Total (Column 1) →			
Total (Column 2) →			
TOTAL			
Examiner's Initials			



J U N 0 9 3 5 2 7 F 0 1

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

For Questions 1 to 5, write the letter for each answer in the box given.

1 From the list given below, write the letter or letters for each answer in the space given.

- A CD-ROM drive
- B Graphics digitiser
- C Hard disk drive
- D Laser printer
- E Light pen
- F Modem
- G Monitor
- H Mouse

1 (a) Choose **two** of the above that are input devices.

Answers

(2 marks)

1 (b) Choose **one** of the above that is an output device.

Answer

(1 mark)

1 (c) Choose **two** of the above that are storage devices.

Answers

(2 marks)

1 (d) Choose **one** of the above that is **NOT** an input, output or storage device.

Answer

(1 mark)

6



2 Which software packages would be the **best** to use for the following tasks? Write the letter for each answer in the space given.

2 (a) For a school to create a newsletter to send to parents each term

- A database management
- B spreadsheet
- C web design
- D desktop publishing
- E drawing

Answer

(1 mark)

2 (b) For a student to store and organise details of a large CD collection

- A database management
- B spreadsheet
- C web design
- D desktop publishing
- E drawing

Answer

(1 mark)

2 (c) For a small hotel to calculate the bills for guests

- A database management
- B spreadsheet
- C web design
- D desktop publishing
- E drawing

Answer

(1 mark)

2 (d) For a shop selling DVDs to advertise their products on the Internet

- A database management
- B modelling
- C web design
- D desktop publishing
- E drawing

Answer

(1 mark)

4

Turn over ▶



3 What do the following abbreviations stand for?

3 (a) ROM

- A Read Online Memory
- B Reduced Online Memory
- C Reduced Only Memory
- D Read Only Memory
- E Right Only Memory

Answer

(1 mark)

3 (b) RAM

- A Recently Accessed Memory
- B Reduced Access Memory
- C Reduced Active Memory
- D Random Active Memory
- E Random Access Memory

Answer

(1 mark)

3 (c) CD-RW

- A Compact Disc-Recordable
- B Compact Disc-Rewriteable
- C Compact Disc-Readable
- D Compact Disc-Reclaimable
- E Compact Disc-Receiveable

Answer

(1 mark)

3



4 In each part of this question, which term **best** matches the definition given? Choose your answers from the list given below. Write the letter for each answer in the space given.

- A Calibrate
- B Data logging
- C Feedback
- D Logging interval
- E Mouse
- F Period of logging
- G Sensor

4 (a) An input device used to measure environmental conditions

Answer

(1 mark)

4 (b) The collecting and storing of data at regular, fixed intervals over a period of time

Answer

(1 mark)

4 (c) The time between the first reading being taken and the last reading being taken

Answer

(1 mark)

4 (d) To match the readings of a sensor with those of a known standard

Answer

(1 mark)

4

Turn over for the next question

Turn over ▶



5 (a) Which **one** of the following could be used as a **physical** method to prevent unauthorised access to information stored on a computer system?

- A virus check
- B password
- C lock on the computer room
- D data logging
- E data capture forms

Answer

(1 mark)

5 (b) Which **one** of the following could be used as a **software** method to prevent unauthorised access to information stored on a computer system?

- A virus check
- B password
- C lock on the computer room
- D data logging
- E data capture forms

Answer

(1 mark)

2



- 6 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.

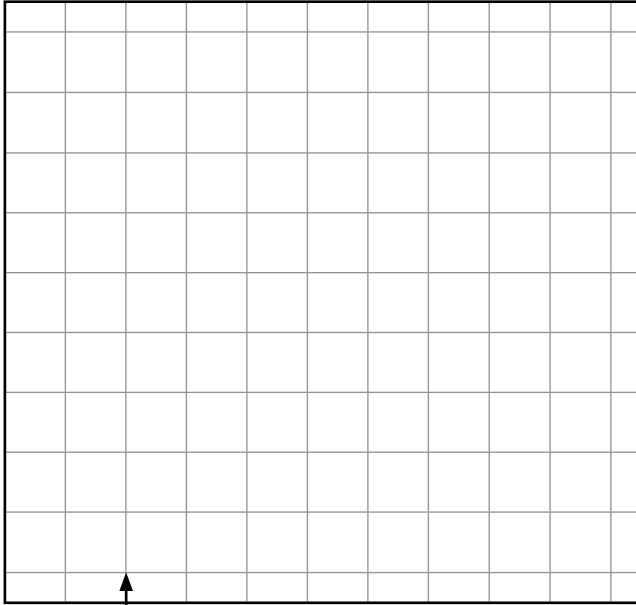
Examples of the commands which are used to move the turtle are as follows:

FORWARD 5 would move the turtle forward 5 complete squares.

LEFT 90 would turn the turtle left through an angle of 90 degrees.

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

On the grid, draw the shape produced by the commands given below.



Start here

Commands

Forward 6

Right 90

Forward 6

Right 90

Forward 4

Right 90

Forward 4

Left 90

Forward 2

Right 90

Forward 2

(3 marks)

3

Turn over for the next question

Turn over ▶



- 7 A high street shop that sells DVDs and computer games offers a 10% discount to customers who join their membership scheme.

In the space below, complete the design of a Data Capture Form for people applying to join the shop's membership scheme. Care should be taken to include suitable fields and enough space to fill in their details.

Surname

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

First name

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Address 1

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Address 2

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Address 3

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

(3 marks)

3



- 8 Lancre Theme Park has decided to produce a leaflet to attract more customers. They have used a Desktop Publishing package to produce the leaflet shown below.

Lancre Theme Park

20 new and exciting rides for 2009

Over 80 rides available every day

Open daily from 20th April 2009 until 20th October 2009.

Entrance fee

Children under 16 only

£7.99

Adults

£9.99

10 food outlets

Wide variety of shops

Telephone 0123 8989898 or email park.admin@lancreconnet.com for more details or group reservations

- 8 (a) Give **one** feature of the software that has been used to make the heading 'Lancre Theme Park' stand out.

Feature used
(1 mark)

- 8 (b) Give **one** other feature of the software that could be used to make the sub-heading 'Entrance fee' stand out.

Other feature
(1 mark)

- 8 (c) Give **three** other features of the software that could be used to improve the appearance of the rest of the leaflet.

Feature 1

Feature 2

Feature 3

(3 marks)



9 The 1998 Data Protection Act was introduced to help protect people's right to privacy.

- A Data is obtained for specified and lawful purposes
- B Data where national security is concerned
- C Data is never to be given to anyone
- D Data must not be more than six months old
- E Data can be prevented from being used for direct marketing
- F Data individuals want removed from their record must be removed immediately
- G Data is not under any circumstances to be transferred outside the UK
- H Data is to be kept secure against loss, damage or unauthorised processing
- I Data used for health, education and social work

From the list (A to I) above, write the letter for each answer in the space given.

9 (a) Give **two** responsibilities placed on data users by the 1998 Data Protection Act.

Responsibility 1

Responsibility 2

(2 marks)

9 (b) Give **one** right the 1998 Data Protection Act gives to data subjects.

Right of data subject

(1 mark)

9 (c) Give **one** exemption from the 1998 Data Protection Act.

Exemption

(1 mark)

4



10 Increasingly, companies are using the Internet to gain access to new customers throughout the world. Give **three** reasons why these companies may find it harder to sell to people in developing countries.

Reason 1

.....

Reason 2

.....

Reason 3

.....

(3 marks)

<hr/>
3

Turn over for the next question

Turn over ▶



- 11 Betabookz is a company that sells books, CDs and other related items online. Part of its stock database file is shown below.

Stock Number	Item Name	Type of Item	Number in Stock	Selling Price
A1002	The End	Bk	14	£9.99
A1009	Best of the Eagles	CD	12	£7.99
A1013	Super Mario 4	Gm	23	£29.99
A1024	Last Attack	Gm	19	£32.99
A1028	Best of the Beatles	CD	15	£11.99
A1032	Guinness Book of Records	Bk	20	£15.99
A1033	Chaos	Bk	7	£11.99
A1035	Hannah	Bk	5	£3.99
A1037	Bat Out of Hell 2	CD	10	£6.99

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

.....
(1 mark)

- 11 (b) A member of staff tries to add this incorrect record to the database.

Stock Number	Item Name	Type of Item	Number in Stock	Selling Price
A1002	Sign of Four	Bk	5	£5.99

- 11 (b) (i) State why this record should be rejected.

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

- 11 (b) (ii) Give **one** method of avoiding this problem.

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



11 (c) A member of staff tries to add this incorrect record to the database.

Stock Number	Item Name	Type of Item	Number in Stock	Selling Price
A1064	My Way	Bk	-3	£7.99

11 (c) (i) State why this record should be rejected.

.....

(1 mark)

11 (c) (ii) Tick **one** box to show which of the following is a type of check that would be used to detect that this record is incorrect.

	Tick one box only
Interval data	
Data spelling	
Data validation	
Digital data	
Data logging	

(1 mark)

11 (d) In order to search the database, the following commands are used.

- And**
- Or**
- Equals**
- Less than**

Write down the Stock number(s) selected as a result of the following searches.

11 (d) (i) Type of Item **Equals** Gm

.....

(1 mark)

11 (d) (ii) Type of Item **Equals** Bk **And** Selling Price **Less than** £9.99

.....

(1 mark)



- 12 A family uses a PC to help to plan the costs for a holiday. The first attempt is shown below.

	A	B	C	D	E
1	Family Holiday Plan - 2 weeks self catering				
2					
3					
4		Cost each	Number needed	Total cost per item	
5	Holiday cost per adult	£369.00	2	£738.00	
6	Holiday cost per child	£179.00	2	£358.00	
7	Insurance per adult	£9.99	2	£19.98	
8	Insurance per child	£4.99	2	£9.98	
9	Trips - family cost	£39.99	3	£119.97	
10	Food/meals - family cost per day	£50.00	14	£700.00	
11	Other expenses per day	£25.00	14	£350.00	
12	Petrol costs to the airport	£40.00	1	£40.00	
13	Airport parking (two weeks)	£70.00	1	£70.00	
14					
15					
16		Total cost of holiday		£2,405.93	
17					

- 12 (a) Tick **one** box to show which type of software package has been used to produce this plan.

	Tick one box only
Database	
Graphics	
Spreadsheet	
Word processing	

(1 mark)

- 12 (b) Which cell contains the **total other expenses** for the holiday?

	Tick one box only
A11	
B11	
C11	
D11	

(1 mark)



12 (c) The cells in this spreadsheet have been formatted to contain text, number or currency.

State which **one** of these is contained in the following cell.

B13.....
(1 mark)

12 (d) State the formula which would be contained in the following cell.

D16.....
(1 mark)

12 (e) The family has set a maximum of £2200 to spend on their holiday. Explain clearly how they could use the spreadsheet to investigate ‘what if’ situations to help them keep within their budget.

.....
.....
.....
.....

(2 marks)

6

Turn over for the next question

Turn over ▶



13 Most people who work in call centres use their computers for a large part of each day. The firms that employ them are increasingly aware of computer-related health issues such as eye strain.

13 (a) Give **two** different steps that can be taken to help reduce the risks of eye strain for call centre staff.

Step 1

.....

Step 2

.....

(2 marks)

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

Problem 1

.....

Problem 2

.....

(2 marks)

4



Turn over for the next question

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

Turn over ▶



- 14** A poster is needed to advertise the Lancre School's musical production of *Grease*. The poster has to contain the following information.

Name of musical

Grease

General Details

Dates – 23rd to 25th June 2009
Where – Lancre School Hall
Time – 7 pm
Ring Lancre 01238 767676 for more details

Admission

Adults – £3
Child/Seniors – £1.50

- 14** (a) Use the space on the page opposite to design a suitable poster. Care should be taken with the layout of your poster. You do not need to colour in your design. (3 marks)
- 14** (b) Label your design to show where you would use each of the following features:
- coloured text
importing clip art. (2 marks)
- 14** (c) Add notes to your design to say why you have used each of the above features in the way you have shown. (2 marks)





Turn over for the next question

7

Turn over ▶



15 A national chain of sports shops is increasingly using e-mail as a means of communication. They use e-mail to communicate with head office, suppliers and customers.

15 (a) Explain what is meant by the term e-mail.

.....
.....

(1 mark)

15 (b) A secretary wants to send an e-mail to a supplier to report some stock which has not arrived. Tick **two** boxes to show how the secretary could find out the e-mail address of the supplier.

	Tick two boxes only
Look in the telephone book	
Click the reply button on an e-mail received from this supplier	
Move all supplier e-mails to another folder	
Remove other supplier e-mails from the In folder	
Use the address book set up in the e-mail software	

(2 marks)

15 (c) For many years, the company used post to communicate with suppliers rather than e-mail. Give **two** advantages of using e-mail as a means of communication compared to using post.

Advantage 1

.....

Advantage 2

.....

(2 marks)

15 (d) Give **one** disadvantage of using e-mail as a means of communication compared to using post.

Disadvantage

.....

(1 mark)

6



16 A college hopes to attract Year 11 students from a local secondary school. Staff from the college are planning to describe their courses and facilities in a Year 11 assembly. Last year they handed out printed leaflets and talked about the college. This year they are going to give a multimedia presentation.

16 (a) Name **two** pieces of hardware the college staff will need to use to give their multimedia presentation.

Hardware 1

Hardware 2

(2 marks)

16 (b) Describe **two** possible advantages of using a multimedia presentation.

Advantage 1

.....

Advantage 2

.....

(2 marks)

16 (c) Describe **one** possible advantage of continuing to hand out a printed leaflet and to talk about the college.

.....

.....

(1 mark)

Turn over for the next question

5

Turn over ▶



17 The Geography department in a school has recently bought two new software packages. One of these is for producing charts and the other is for designing web pages.

17 (a) Which **two** of the following would you expect the chart software to be able to do?

	Tick two boxes only
Edit number scales on the axis	
Construct bar charts from tables of data	
Use of brushes	
Freehand drawing	
Calculation of cost	

(2 marks)

17 (b) Two features of the web design software are **hyperlinks** and **hot spots**. Explain briefly what is meant by these terms:

17 (b) (i) Hyperlinks

.....

17 (b) (ii) Hot spots

.....

(2 marks)

17 (c) Give **one** other feature that you would expect the web design software to have.

.....

.....

(1 mark)

5



18 A hospital has recently changed its method of arranging patients' appointments with a specialist doctor. Originally, staff at the hospital chose the time and the date of the appointment and posted these details to the patient. Now, using the Internet, patients will be allowed to book the time and date of their own appointments on-line.

18 (a) Describe **two** possible advantages to patients in booking the time and date of their own appointments.

Advantage 1

.....

Advantage 2

.....

(2 marks)

18 (b) Describe **one** possible disadvantage to patients in booking the time and date of their own appointment.

Disadvantage

.....

(1 mark)

END OF QUESTIONS

3



There are no questions printed on this page

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