

Surname		Other Names	
Centre Number		Candidate Number	
Candidate Signature			

For Examiner's Use
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General Certificate of Secondary Education  
June 2008

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

**F**



Tuesday 20 May 2008 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 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.

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



J U N 0 8 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 Below is a list of various types of application software.

- A database
- B desk top publishing
- C drawing
- D mail-merging
- E modelling
- F spreadsheet
- G web design
- H word processing

Which **one** would be the **most suitable** to use for each of the following tasks?

1 (a) Rotation of shapes

Answer

(1 mark)

1 (b) Typing in text for a novel

Answer

(1 mark)

1 (c) Using frames to position text and graphics on a page

Answer

(1 mark)

1 (d) Replication of cells

Answer

(1 mark)

1 (e) Carrying out a complex search on two or more criteria

Answer

(1 mark)

1 (f) A simple flight simulation

Answer

(1 mark)



2 What is meant by the term hard copy?

- A Information that is never output
- B Output saved on to ROM
- C Output on to a screen
- D Printed output

Answer

(1 mark)

3 Which **one** of the following is a right the Data Protection Act gives to data **subjects**?

- A Any data individuals want removed, must be removed
- B Data is accurate and up-to-date
- C Data must never be passed on to others
- D Prevent processing likely to cause damage or distress

Answer

(1 mark)

4 Which **one** of the following is a responsibility the Data Protection Act places on data **users**?

- A Any data individuals want removed, must be removed
- B Data is accurate and up-to-date
- C Data must never be passed on to others
- D Prevent processing likely to cause damage or distress

Answer

(1 mark)

5 Which **one** of the following is **not** a logical operator used in the construction of database queries?

- A AND
- B BUT
- C NOT
- D OR

Answer

(1 mark)

4

Turn over ►



- 6 MInotes is a Music shop which sells CDs, DVDs and a range of related goods. To try to increase sales, the manager uses a Desktop Publishing (DTP) Package to produce an advertising leaflet which is shown below.

MInotes

Special Offers

If you buy one full price CD during June you will get a second CD for half of the regular price.

If you spend over £30 on any item or items in our store, you will receive a free CD from our £3.99 range of CDs.

Do not miss out on these great bargains

The manager was not very pleased with this leaflet and has produced a second version which is shown below.

**MInotes**

Special Offers

1. If you buy one full price CD during June you will get a second CD for half of the regular price.

2. If you spend over £30 on any item or items in our store, you will receive a free CD from our £3.99 range of CDs.

Do not miss out on these great bargains

- 6 (a) Name **three** features of the DTP software that have been used to make changes to the leaflet.

Feature 1.....

Feature 2.....

Feature 3.....

(3 marks)

- 6 (b) Name **two** different features of the software that could be used to further improve the leaflet. Give a reason for each.

Feature 1.....

Reason 1.....

Feature 2.....

Reason 2.....

(4 marks)



7 Read the list below.

- |                        |                                 |
|------------------------|---------------------------------|
| <b>A</b> Cable         | <b>G</b> Modem                  |
| <b>B</b> CD-ROM        | <b>H</b> Plotter                |
| <b>C</b> Hard disk     | <b>I</b> RAM                    |
| <b>D</b> Joystick      | <b>J</b> Speaker                |
| <b>E</b> Laser printer | <b>K</b> Touch sensitive screen |
| <b>F</b> Microphone    |                                 |

7 (a) (i) From the list given above, choose **one** device that is an **input peripheral**.

Answer  (1 mark)

7 (a) (ii) Name **one** input peripheral **not** given in the list above.

..... (1 mark)

7 (b) (i) From the list given above, choose **one** device that is an **output peripheral**.

Answer  (1 mark)

7 (b) (ii) Name **one** output peripheral **not** given in the list above.

..... (1 mark)

7 (c) (i) From the list given above, choose **one** that is a **storage medium**.

Answer  (1 mark)

7 (c) (ii) Name **one** storage medium **not** given in the list above.

..... (1 mark)

6
---

Turn over ▶



8 Some students are planning a School Prom for Year 11. Their first attempt is shown below.

	A	B	C	D	E
1	<b>Year 11 Prom Planner</b>				
2					
3	<b>29 June 2008</b>				
4					
5	<b>Number of students paying</b>	150			
6					
7	<b>Expenditure</b>	<b>Cost of each</b>	<b>Number needed</b>	<b>Total Cost</b>	
8	Coach Hire	£75.00	4	£300.00	
9	Function rooms	£100.00	3	£300.00	
10	Decorations (per room)	£22.50	3	£67.50	
11	Three course meal	£14.00	150	£2,100.00	
12	Soft drinks	£3.50	150	£525.00	
13					
14					
15					
16					
17	<b>Total cost of the Prom</b>			£3,292.50	
18					
19	<b>Cost per student</b>			£21.95	

8 (a) In the spreadsheet what is the shaded area A14 called?

	Tick <b>one</b> box only
A cell	
A column	
A row	
A calculation	

(1 mark)

8 (b) Cells in a spreadsheet can be formatted.

8 (b) (i) What formatting has been used in A3?

	Tick <b>one</b> box only
Currency	
Date	
Formula	
Number	

(1 mark)



- 8 (b) (ii) What formatting has been used in B11?

	Tick <b>one</b> box only
Currency	
Date	
Formula	
Number	

(1 mark)

- 8 (c) A spreadsheet can generate different types of graph. Give **one** suitable type of graph that could be used to display the various kinds of expenditure.

.....  
(1 mark)

- 8 (d) What formula has been used to calculate the cost per student in D19?

.....  
(1 mark)

- 8 (e) Many Year 11 students said that the maximum they would pay to go to the Prom would be £20. Explain how the software could be used for 'what if' situations, to try to keep the cost under £20.

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

**Turn over for the next question**

7
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**Turn over ▶**



9 The definitions below are all related to data logging and control systems. From the list given below, choose the term which best matches the definition. Write the letter for your answer in the box provided.

A actuator  
B calibrate  
C data logging  
D encryption

E feedback  
F graphing  
G keyboard  
H logging interval

I modem  
J period of logging  
K sensor  
L wizard

9 (a) Collecting and storing of data at regular, fixed intervals over a period of time.

Answer

(1 mark)

9 (b) An input device used to measure environmental conditions.

Answer

(1 mark)

9 (c) The time taken between one reading and the next.

Answer

(1 mark)

9 (d) To compare the readings of a sensor against those of a known scale.

Answer

(1 mark)

4
---





10 Interauc is an on-line auction site where you can buy or sell almost anything.

10 (a) What is meant by the term on-line?.....

.....  
(1 mark)

10 (b) Give **two** possible advantages to the customer of **buying goods** on Interauc rather than from a local auction house or a high street shop.

Advantage 1 .....

.....

Advantage 2 .....

.....

(2 marks)

10 (c) Give **two** possible disadvantages to a company/individual of **selling goods** on Interauc rather than selling them locally.

Disadvantage 1 .....

.....

Disadvantage 2 .....

.....

(2 marks)

10 (d) Why might Interauc **not** allow some goods to be sold on their auction site?

.....

.....

(1 mark)

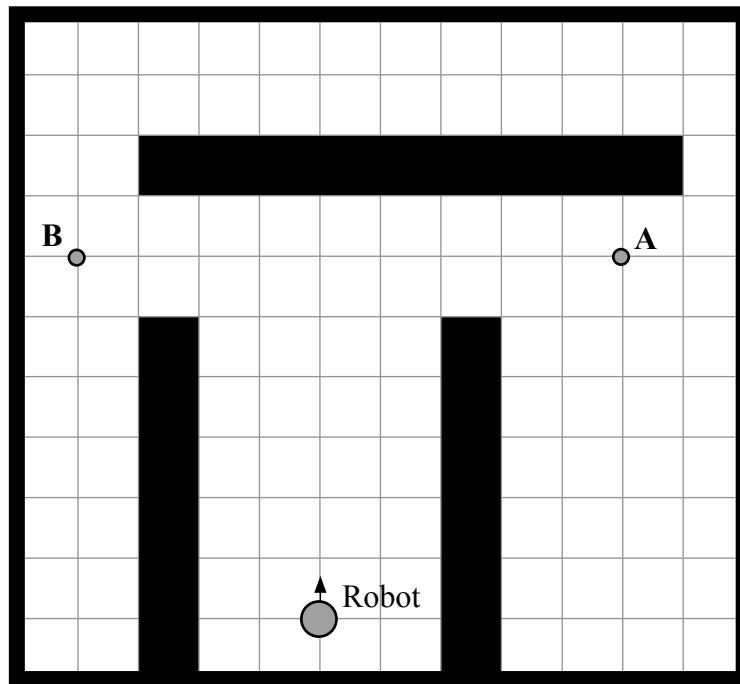
6

**Turn over for the next question**

**Turn over ▶**



- 11** A group of pupils from a school enter a competition to build a programmable robot. The robot must move around an obstacle course without bumping into the walls. The walls are shown in black in the diagram below.



Examples of the instructions needed to program the robot are given below.

Instruction List	Movement by the robot
Fd2	Moves the robot forward 2 squares
Bk2	Moves the robot backward 2 squares
Rt90	Turns the robot right through 90 degrees

#### Command List

Fd4  
Fd5  
Fd6  
Rt90  
Bk4  
Bk5



**11 (a)** Using **only** the commands from the Command List opposite, write down instructions to move the robot from the starting position shown to point A.

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

*(2 marks)*

**11 (b)** Again using **only** the commands from the Command List, write down instructions to move the robot from the original starting position shown to point B.

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

*(2 marks)*

**11 (c)** Again using **only** the commands from the Command List, write down instructions to move the robot from the original starting position shown to point A, then to point B and finally back to the original starting position.

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

*(3 marks)*

7

**Turn over ▶**



12 Explain, **with examples**, the difference between data and information.

.....

.....

.....

.....

.....

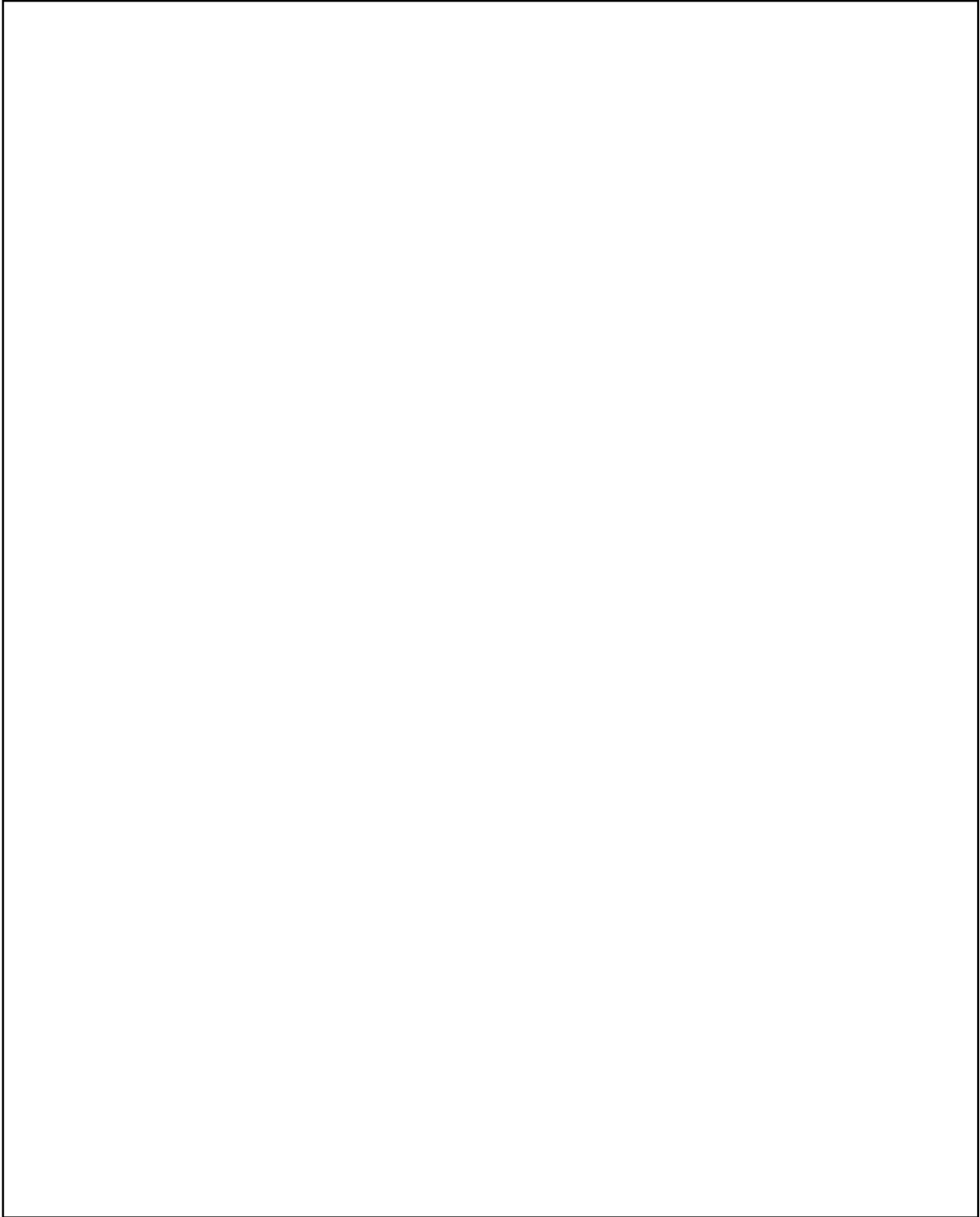
.....

*(3 marks)*

<b>3</b>



- 13** Lancre Theme Park is about to introduce a weekly membership pass that allows visitors to pay once and use all the Park's facilities for a week. In the space below, design a Data Capture Form for people applying for a weekly membership pass. Care should be taken to include suitable fields and enough space to fill in their details.



*(6 marks)*

**Turn over ▶**

6



14 CottagesRUS is a company that rents out holiday homes. They use a database to store information on their properties to rent. Part of the Database file is shown below.

Property ID	Type of Property	Property location	Max people	Heating	Weekly rent (min – max)	Pets allowed
C4UC01	C	Lancre	4	CH	£200 - £300	Y
C4UC02	C	Lancre	4	CF	£200 - £300	N
C4UH02	H	Hickley	12	CH	£300 - £500	N
C4UC04	C	Hickley	6	EF	£250 - £375	N
C4UB02	B	Lancre	6	CH	£275 - £375	N
C4UB03	B	Hickley	4	CH	£175 - £275	Y
C4UH03	H	Lancre	8	CH	£300 - £400	Y
C4UC06	C	Lancre	6	CF	£200 - £300	N
C4UC07	C	Lancre	2	CH	£150 - £225	N
C4UH05	H	Hickley	8	CH	£250 - £375	N
C4UB05	B	Hickley	4	CH	£175 - £250	Y
C4UC09	C	Lancre	2	CH	£150 - £225	Y

The following codes have been used for the **Type of Property** field.

C - Cottage    H - House    B – Bungalow

14 (a) Name **one** other field that has been coded. .... (1 mark)

14 (b) How many records are shown in this database file?

Answer  (1 mark)

14 (c) Why is the **Property ID** field needed?..... (1 mark)

14 (d) CottagesRUS use data validation to check the data as it is entered into the database to make sure that it is

	Tick <b>one</b> box only
correct.	
sensible.	
sorted into order.	

(1 mark)



14 (e) Which field would be the most suitable to validate using a range check?

	Tick <b>one</b> box only
Property location	
Max people	
Heating	

(1 mark)

14 (f) Give **two** advantages to CottagesRUS of using a database rather than a manual method for storing this information.

Advantage 1 .....

.....

Advantage 2 .....

.....

(2 marks)

**Turn over for the next question**

7

**Turn over ▶**



15 The Art department in a school has recently bought a graphics package.

15 (a) Which **two** of the following are features you would expect to find in a graphics package?

	Tick <b>two</b> boxes only
Resizing of objects	
Complex search on two or more criteria	
Formatting of cells	
Importing of images	
Mail-merging	

(2 marks)

15 (b) Give **one** more feature you would expect to find in a graphics package.

.....

.....

(1 mark)

15 (c) The graphics package is going to be used to create a new logo for the school. Give **two** advantages of using a graphics package to create the logo, rather than just using clip-art.

Advantage 1 .....

.....

Advantage 2 .....

.....

(2 marks)

5
---





16 Daniel Chan has just started a new job as a reporter on a local newspaper. He has to choose a password to use on the newspaper’s computer network. He has come up with four possible passwords which are:

- Daniel
- ChanNews
- DC007
- Adfhi245361.

16 (a) The **least secure** choice from these four passwords would be Daniel. Give **one** reason why this would be the least secure password.

.....

.....

*(1 mark)*

16 (b) State which of these passwords would be the **most secure** and give a reason for your choice.

Password .....

*(1 mark)*

Reason .....

.....

*(1 mark)*

16 (c) Give **one** reason why the newspaper needs to use passwords.

.....

.....

*(1 mark)*

16 (d) Give **two** physical precautions that could be taken to keep the data on the newspaper’s computer system secure.

Physical precaution 1 .....

Physical precaution 2 .....

*(2 marks)*

6
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Turn over ▶



17 Increasingly, companies are using e-mails to communicate between their offices around the world.

17 (a) Describe what is meant by the term e-mail. ....  
.....  
.....  
*(2 marks)*

17 (b) Which **two** of the following are advantages of using e-mail as a means of communication compared to using **post**?

	Tick <b>two</b> boxes only
E-mails will arrive faster	
E-mails can contain pictures	
E-mails are cheaper to send	
E-mails can be sent in any weather	
E-mails can be sent to more places than post	

*(2 marks)*

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

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

17 (d) Give **one** reason why some people may still use the telephone to communicate with people in other offices.

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

6

**END OF QUESTIONS**



**There are no questions printed on this page**

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