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| Surname | | | | | | Other Names | | | | | |
| Centre Number | | | | | | Candidate Number | | | | | |
| Candidate Signature | | | | | | | | | | | |

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| For Examiner's Use |
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General Certificate of Secondary Education
June 2009



**INFORMATION AND COMMUNICATION TECHNOLOGY 3528/F
(SPECIFICATION B) (SHORT COURSE)
Written Paper
Foundation Tier**

F

Tuesday 19 May 2009 1.30 pm to 2.30 pm

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

Time allowed: 1 hour

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 60.
- 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 | | 5 | |
| 2 | | 6 | |
| 3 | | 7 | |
| 4 | | 8 | |
| Total (Column 1) | | → | |
| Total (Column 2) | | → | |
| TOTAL | | | |
| Examiner's Initials | | | |



J U N O 9 3 5 2 8 F 0 1

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

1 The Ship Restaurant has this old menu.

The Ship Restaurant

Freshly made food

Starters
Prawn Cocktail £4.95
House Pate £4.50
Garlic Mushrooms £4.50

Main Courses
Rack of Lamb £11.95
Steak au Poivre £10.95
Sea Food Thermidor £10.95
Vegetable Bake £6.85

Sweets
Sticky Toffee Pudding £4.50
Pavlova £5.50
Banana Split £4.50

Early Bird Menu 5pm to 6pm
Book on 0997 2341293

The restaurant manager changes the old menu to produce this new menu.

The Ship Restaurant

Freshly made food

Starters
Prawn Cocktail £4.95
House Pate £4.50
Garlic Mushrooms £4.50

Main Courses
Rack of Lamb £11.95
Steak au Poivre £10.95
Sea Food Thermidor £10.95
Vegetable Bake £6.85

Sweets
Sticky Toffee Pudding £4.50
Pavlova £5.50
Banana Split £4.50

Early Bird Menu 5pm to 6pm

Book on 0997 2341293



- 1 (a) Tick **two** boxes to show how the line of text labelled **C** has been changed.

| | Tick two boxes |
|--|-----------------------|
| The text has been bulleted | |
| The style of text has been changed to bold | |
| The font has been changed | |
| The text has been right justified | |
| The font has been animated | |

(2 marks)

- 1 (b) Complete the sentences using words from this list.

a camera
a photograph
a wizard
an autoshape
clip art
word art

- 1 (b) (i) Label **A** points to (1 mark)

- 1 (b) (ii) Label **B** points to and text box which have been grouped. (1 mark)

- 1 (c) The manager saves the new menu as a file on backing storage.

- 1 (c) (i) Tick **two** boxes to show backing storage to save the file on.

| | Tick two boxes |
|-----------|-----------------------|
| Hard disk | |
| Modem | |
| DVD-ROM | |
| DVD-RW | |
| Network | |

(2 marks)

- 1 (c) (ii) The old menu is also saved on backing storage.
Tick **two** boxes to show which of these statements are most likely to be true.

| | Tick two boxes |
|---|-----------------------|
| The new menu has a larger file size than the old menu | |
| The new menu and the old menu have exactly the same file size | |
| The new menu loads more slowly than the old menu | |
| The old menu has been scanned | |
| The old menu loads more slowly than the new menu | |

(2 marks)

Turn over ▶



- 2 A decorator uses a computer to calculate the cost of redecorating a kitchen for a client. This information is displayed on the monitor screen.

| | A | B | C | D |
|----|---|------------------|------------------------|---------------------------------|
| 1 | Estimated costs for redecorating the kitchen | | | |
| 2 | | | | |
| 3 | Item to be purchased | Unit cost | Quantity needed | Total cost for each item |
| 4 | Can of emulsion paint | £25.00 | 2 | £50.00 |
| 5 | Can of gloss paint | £10.00 | 3 | £30.00 |
| 6 | Paint brush | £5.50 | 4 | £22.00 |
| 7 | Laminate flooring (per square metre) | £15.50 | 10 | £155.00 |
| 8 | Cooker | £500.00 | 1 | £500.00 |
| 9 | | | | |
| 10 | Total cost for the kitchen | | | £757.00 |

- 2 (a) Tick **one** box to show what type of software the decorator has used.

| | Tick one box |
|---------------------|---------------------|
| word processor | |
| spreadsheet | |
| desk top publishing | |
| virus scanner | |
| web browser | |

(1 mark)

- 2 (b) Row 4 of the spreadsheet shows that 2 cans of emulsion paint are needed at a cost of £25 each.
Tick **one** box to show which of these statements is true.

| | Tick one box |
|--|---------------------|
| 4 cans of gloss paint are needed at a cost of £10.00 each | |
| 10 square metres of laminate flooring are needed at a cost of £20 each | |
| 4 paint brushes are needed at a cost of £15.50 each | |
| 3 cans of gloss paint are needed at a cost of £10.00 each | |
| The total cost for redecorating the kitchen is £1000 | |

(1 mark)



- 2 (c) Each cell could contain text, a number or a formula.

Cell A6 contains text. Write in the box the cell reference of another cell that contains text.

(1 mark)

- 2 (d) Some cells contain a formula.

| Label | Formula |
|-------|--------------|
| A | =SUM(D4:D8) |
| B | =B6*C6 |
| C | =C6*D6 |
| D | =SUM(D4:D10) |
| E | =SUM(B6:C6) |

- 2 (d) (i) Write in the box the label of the formula in cell D6.

(1 mark)

- 2 (d) (ii) Write in the box the label of the formula in cell D10.

(1 mark)

- 2 (e) Tick **two** boxes to show the advantages to the decorator in using the software rather than working out the cost by hand.

| | Tick two boxes |
|--|-----------------------|
| Costs cannot be changed | |
| The decorator can avoid paying tax | |
| It is faster to write an estimate on a scrap of paper | |
| The decorator can rely on the software to do accurate calculations if it has been set up correctly | |
| The software can be reused for other clients saving the decorator time and effort | |

(2 marks)

Question 2 continues on the next page

Turn over ►



- 2 (f) The decorator wants a computer that can be taken to a client's house so that estimates can be done on the spot and a printed copy given to the client.

Tick **one** box to show what type of computer could be used.

| | Tick one box |
|--------------------------|---------------------|
| Kneetop | |
| Laptop | |
| Desktop | |
| LAN (Local Area Network) | |
| File server | |

(1 mark)

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| 8 |
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- 3 A health centre uses a database to store patients' information. Patients fill in a form when they register with the health centre and a receptionist types in the data.

This is a part of the database.

| Patient Number | Name | Date of Birth | Gender | Doctor |
|----------------|----------|---------------|--------|---------|
| 01938 | Baty | 13/13/1972 | M | McHenry |
| 49073 | Attwood | 13/11/2000 | F | Tysome |
| 28985 | Phillips | 02/12/1995 | M | McHenry |
| 30234 | Wolf | 09/07/1982 | M | Lynch |
| 30234 | Nibert | 09/07/1982 | F | Tysome |
| 10056 | Jones | 14/07/1947 | F | Tysome |

- 3 (a) Write in the box the number of records shown.

(1 mark)

- 3 (b) The receptionist entered the data for Wolf then the data for Nibert. The receptionist made a mistake when entering the **Patient Number** for Nibert. The **Patient Number** is a key field.

- 3 (b) (i) Give **one** reason why the **Patient Number** for Nibert must be incorrect.

.....

.....

(1 mark)

- 3 (b) (ii) Tick **one** box to show how this error could be avoided.

| | Tick one box |
|---|---------------------|
| The medical secretary should enter the Patient Numbers | |
| The database should add the Patient Numbers together | |
| The doctor should enter the Patient Numbers | |
| Patient Numbers should be left off the database as they are not needed | |
| The database should automatically check that the Patient Numbers are correct | |

(1 mark)

- 3 (c) Nibert and Wolf have the same **Date of Birth** on the database. Explain why this could be correct.

.....

.....

Question 3 continues on the next page

(1 mark)

Turn over ►



| Patient Number | Name | Date of Birth | Gender | Doctor |
|----------------|----------|---------------|--------|---------|
| 01938 | Baty | 13/13/1972 | M | McHenry |
| 49073 | Attwood | 13/11/2000 | F | Tysome |
| 28985 | Phillips | 02/12/1995 | M | McHenry |
| 30234 | Wolf | 09/07/1982 | M | Lynch |
| 30234 | Nibert | 09/07/1982 | F | Tysome |
| 10056 | Jones | 14/07/1947 | F | Tysome |

- 3 (d) (i) Tick **one** box to show the name of the field that has been coded.

| | Tick one box |
|-----------------------|---------------------|
| Patient Number | |
| Name | |
| Date of Birth | |
| Gender | |
| Doctor | |

(1 mark)

- 3 (d) (ii) Tick **two** boxes to show why codes are used.

| | Tick two boxes |
|---|-----------------------|
| It is faster to enter the data | |
| It is more secure | |
| There are fewer mistakes in the grammar | |
| People have short attention spans | |
| Less space is needed to store the data on backing storage | |

(2 marks)

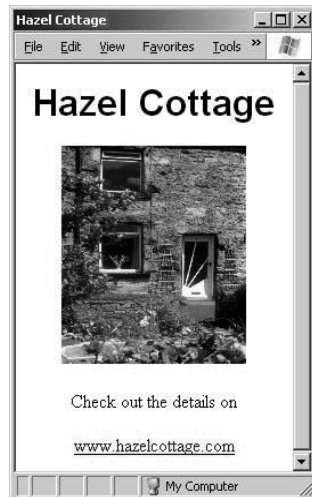
- 3 (d) (iii) Tick **one** box to show a feature of a useful code.

| | Tick one box |
|---|---------------------|
| The code is encrypted | |
| The code can be communicated over a wireless network | |
| The code is complex and difficult to remember | |
| The length of the code is much shorter than the original data | |
| The code can be set to music | |

(1 mark)



- 4 A web programmer is building a website to help people find holiday accommodation.



Microsoft®Internet Explorer

- 4 (a) The programmer opens a file called `hazelcottage.htm` and edits it to produce a web page about another holiday cottage called Willow Cottage. When the editing is finished the file needs to be saved. The programmer uses the Save command.
- 4 (a) (i) Tick **one** box to show why this is a mistake.

| | Tick one box |
|--|---------------------|
| The web page for Willow Cottage would be saved as <code>willowcottage.htm</code> | |
| The web page for Willow Cottage would be saved as <code>hazelcottage.htm</code> | |
| The web page for Hazel Cottage would be saved as <code>willowcottage.htm</code> | |
| The web page for Hazel Cottage would be saved as <code>hazelcottage.bak</code> | |
| The web page for Willow Cottage would be saved as <code>willowcottage.bak</code> | |

(1 mark)

- 4 (a) (ii) Tick **one** box to show what command the programmer should have used instead of Save.

| | Tick one box |
|---------|---------------------|
| Copy | |
| Rename | |
| Delete | |
| Paste | |
| Save As | |

(1 mark)

Question 4 continues on the next page

Turn over ►



- 4 (b) The holiday accommodation website has a search engine designed specifically to search it. One of the inputs is:

Select accommodation type

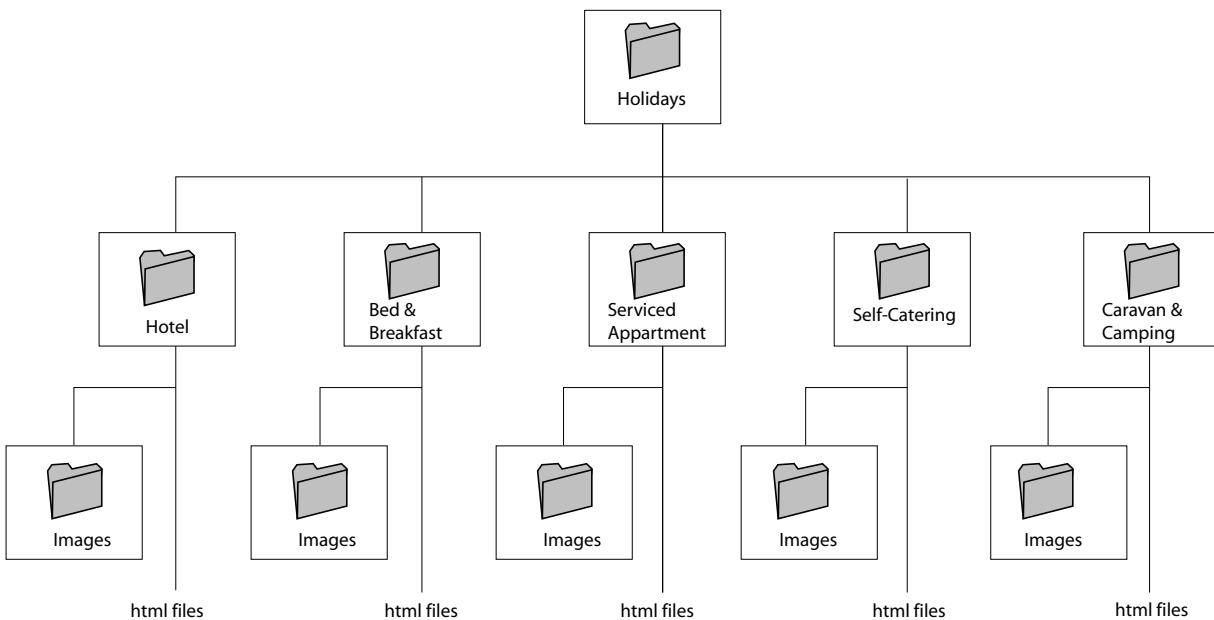
| | |
|--|---|
| <input type="checkbox"/> All | <input type="checkbox"/> Serviced Apartment |
| <input type="checkbox"/> Hotel | <input type="checkbox"/> Self-Catering |
| <input type="checkbox"/> Bed & Breakfast | <input type="checkbox"/> Caravan & Camping |

Tick **three** boxes to show other inputs that might be used to search the website.

| | Tick three boxes |
|---------------------|-------------------------|
| Distance from work | |
| The weather | |
| Number of people | |
| If pets are welcome | |
| Date of holiday | |
| Nearest garage | |

(3 marks)

- 4 (c) All the web pages for all the holiday accommodation will be saved together in a folder called Holidays. The folders used are shown below.



- 4 (c) (i) Willow Cottage is self-catering holiday accommodation. Tick **one** box to show the most likely path to the file willowcottage.htm.

| | Tick one box |
|--|---------------------|
| C:\Holidays\Bed & Breakfast\willowcottage.htm | |
| C:\Holidays\Self-Catering\willowcottage.htm | |
| C:\Holidays\Bed & Breakfast\Images\willowcottage.htm | |
| C:\Holidays\Hotel\willowcottage.htm | |
| C:\Holidays\Self-Catering\Images\willowcottage.htm | |

(1 mark)

- 4 (c) (ii) Tick **one** box to show the most likely path to the file willowcottage.jpg.

| | Tick one box |
|--|---------------------|
| C:\Holidays\Bed & Breakfast\willowcottage.jpg | |
| C:\Holidays\Self-Catering\willowcottage.jpg | |
| C:\Holidays\Bed & Breakfast\Images\willowcottage.jpg | |
| C:\Holidays\Hotel\willowcottage.jpg | |
| C:\Holidays\Self-Catering\Images\willowcottage.jpg | |

(1 mark)

| |
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| 7 |
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Turn over for the next question

Turn over ▶



- 5 (a) When students log on to a computer network they have to enter a username and password.

Tick **two** boxes to show sensible rules about using passwords.

| | Tick two boxes |
|---|-----------------------|
| You should write your password on a piece of paper and stick it on the computer | |
| You should not watch someone entering their password | |
| You should tell your friends your password in case you forget it | |
| You should use the name of your pet as a password | |
| You should keep your password secret | |

(2 marks)

- 5 (b) In parts (b)(i) to (b)(iii), each reason you give should be different.

A student logs on to the network.

- 5 (b) (i) The network has been set up to prevent students downloading and installing software.

Give **one** reason why the network has been set up to prevent this.

.....

(1 mark)

- 5 (b) (ii) The network prevents students accessing each others' user areas and files.
 Give **one** different reason why the network has been set up to prevent this.

.....

(1 mark)

- 5 (b) (iii) The network prevents students accessing some websites.
 Give **one** different reason why the network has been set up to prevent this.

.....

(1 mark)



5 (c) Sometimes students using the network find that it is very slow.
Give **one** reason why network access might be slow and suggest a solution.

Reason

.....

Solution

.....

(2 marks)

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| 7 |

Turn over for the next question

Turn over ▶



6 ParkSafely is a company that manages car parks. It is considering whether to use an ICT system to help manage the car parks.

6 (a) Tick **two** boxes to show reasons why ParkSafely would use an ICT system.

| | Tick two boxes |
|--|-----------------------|
| Information on the availability of parking spaces can be displayed automatically | |
| ParkSafely can charge more | |
| ParkSafely also own car washes | |
| All the car parks ParkSafely own are run in very similar ways | |
| ParkSafely have resurfaced all their car parks | |

(2 marks)

6 (b) ParkSafely do a feasibility study to find out if they should use an ICT system. Tick **two** boxes to show what should be done as part of a feasibility study.

| | Tick two boxes |
|---|-----------------------|
| Purchase all the new hardware that would be needed | |
| Train car park workers to use the ICT system | |
| Test the software that will be used | |
| Estimate the cost of new software and hardware | |
| Briefly describe what the proposed ICT system could be used for | |

(2 marks)



- 6 (c) ParkSafely install an ICT system that keeps track of the number of cars in a car park using barriers across the entrances and exits. The barriers are controlled by the ICT system.

Write down the labels in order to show what the ICT system should do when a car approaches the barrier and enters the car park.

| Label | Statement |
|-------|--|
| A | Add 1 to the number of cars in the car park |
| B | If the car park is full, switch the full sign on |
| C | Issue a ticket |
| D | Detect the car |
| E | Open the barrier, wait for the car to pass through and close the barrier |

| Label |
|-------|
| |
| |
| |
| |
| |

(2 marks)

- 6 (d) Write a label next to the ICT system life cycle task to show what the task includes.

| Label | What the task includes |
|-------|--|
| A | Entering extreme data to check that the system responds correctly to unusual inputs |
| B | Using flowcharts to show what processing will be done |
| C | Using the ICT system to manage car parks |
| D | Checking the system as it is being used to make sure it is still working as expected |
| E | Preparing instructions for users to show them how to use the ICT system |

| ICT system life cycle task | Label |
|----------------------------|-------|
| Documentation | |

(1 mark)

| |
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| 7 |

Turn over for the next question

Turn over ▶



7 A school uses an ICT system to register the attendance of pupils. Each pupil has their own identification card.

7 (a) When a pupil arrives at school, the pupil registers by swiping their identification card through a card reader.

Tick **one** box to show how information could be recorded on the identification card.

| | Tick one box |
|---|---------------------|
| Zip folder | |
| Magnetic stripe | |
| Questionnaire | |
| Magnetic Ink Character Recognition (MICR) | |
| Voice recognition | |

(1 mark)

7 (b) Teachers notice that sometimes pupils who are not in class are registered as present.

Tick **two** boxes to show how this could happen.

| | Tick two boxes |
|---|-----------------------|
| Some pupils did not register using their identification cards | |
| Absent pupils gave their identification cards to other pupils who registered for them | |
| Pupils arrived before the ICT system was switched on | |
| Some pupils registered using their identification cards then went home | |
| Some pupils are not wearing school uniform | |

(2 marks)

7 (c) Tick **two** boxes to show ways to make registration more accurate.

| | Tick two boxes |
|--|-----------------------|
| Ensure pupils can only enter and leave school through turnstiles which are operated using their identification cards | |
| Print each pupil's identification number on their identification card | |
| Make identification cards of more robust plastic | |
| Teachers should closely supervise pupils who are registering using their identification cards | |
| Allow parents to register their children | |

(2 marks)



7 (d) Tick **two** boxes to show which of these statements are most likely to be true.

| | Tick two boxes |
|---|-----------------------|
| Pupils who arrive late do not have to register | |
| The ICT system automatically contacts parents or carers to let them know if their children are absent | |
| The identification card has to be replaced every week | |
| The ICT system automatically e-mails the police to let them know who is absent | |
| A record of a pupil's attendance is kept on the ICT system | |

(2 marks)

| |
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| 7 |
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Turn over for the next question

Turn over ▶



8 (a) Convicted criminals can be fitted with a tag that identifies them. The tag can communicate with the police computer using a wireless network fitted in the home of the criminal. This helps the police computer track the criminal.

8 (a) (i) Tick **two** boxes to show why criminals are tagged.

| | Tick two boxes |
|--|-----------------------|
| Criminals are tagged so that neighbours will know who they are | |
| The location of all criminals can be monitored | |
| The police like to use the latest technology | |
| There is a shortage of accommodation in prisons | |
| A criminal can get used to living at home again before their prison sentence is complete | |

(2 marks)

8 (a) (ii) Tick **two** boxes to show why tagging may not be effective in tracking criminals.

| | Tick two boxes |
|--|-----------------------|
| If the wireless signal is too strong, the police computer cannot know the location of the tag | |
| If the tag is removed, the police computer will not know the location of the criminal | |
| If the tag is out of range of the wireless network, the police computer will not know its location | |
| If the criminal lives close to a mobile telephone mast, the police computer will not be able to communicate with the tag | |
| The presence of the criminal's family will disturb the wireless signal | |

(2 marks)



8 (b) Some dog owners have a microchip implanted under the skin of their dog.

8 (b) (i) Give **one** advantage to the dog owner.

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

8 (b) (ii) Give **one** other advantage to a dog warden.

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

8 (c) Describe **two** other methods that could be used to track a British citizen using ICT systems.

Method 1

Method 2

(2 marks)

| |
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| |
| 8 |

END OF QUESTIONS



There are no questions printed on this page

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

