



General Certificate of Secondary Education

**Information and Communication
Technology 3522 Full Course**
Specification B

3522/F Foundation Tier

Mark Scheme

2007 examination – June series

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3522/F**GCSE Information and Communication Technology Specification B (Full Course)**

- | | | | |
|---|----------|--|---------|
| 1 | (a) | <p>These points. peter.jones@schoolsnet.ngfl.uk pqr@manch.biz.net</p> | 2 marks |
| 1 | (b) | <p>These points. When you reply to an e-mail, the e-mail is automatically addressed to the person who sent it to you When you forward an e-mail, you have to enter the address of the person you are sending it to</p> | 2 marks |
| 1 | (c) | <p>These points. A new e-mail message opens or a blank e-mail form opens The e-mail is automatically addressed If you have set up an e-mail signature, it is automatically put in the message</p> | 3 marks |
| 1 | (d) (i) | <p>These points. A word processed document A digital photograph</p> | 2 marks |
| 1 | (d) (ii) | <p>Any reasonable, for example: A program A spreadsheet A slide show A web page An audio file, allow: music A video file A virus NOT: A word processed document or a digital photograph or equivalents</p> | 1 mark |
| 1 | (e) | <p>This point. The file is compressed</p> | 1 mark |
| 1 | (f) | <p>Any reasonable, for example: To make sure the file size is smaller, or, otherwise the email would be too big. The file is sent and received faster. You can attach more files to an e-mail. Some ISPs restrict the size of attachments, or too large to send NOT in order to compress the file unless qualified, for example: to compress the file and make it smaller</p> | 1 mark |
| 1 | (g) | <p>These points. The name of a contact at the company The address of the company Web site The address and telephone number of the company</p> | 3 marks |

Total 15 marks

| | | | |
|---|----------|--|---------|
| 2 | (a) | These points. A date; A number; A picture | 3 marks |
| 2 | (b) (i) | This point. B5 | 1 mark |
| 2 | (b) (ii) | This point. C2 | 1 mark |
| 2 | (c) | This point. =E5-C6+D6 | 1 mark |
| 2 | (d) | This point. =E8 | 1 mark |
| 2 | (e) | These points. Calculating mortgage repayments Modelling future spending Displaying the balance carried forward each month of the year in a graph | 3 marks |
| 2 | (f) | These points. Correct order is DBAC, 2m Any 3 in order, 1m For example, BDAC, DABC, DACB | 2 marks |
| 2 | (g) | Any reasonable reason why this may not be secure, for example: 1. It's easy to lose a flash memory stick 2. If the flash memory stick is lost someone else could read the statement. NOT: There's no password on it Any reasonable corresponding way to make the statement more secure, for example: 1. Use a lanyard or otherwise secure the flash memory stick or make a backup 2. Put a password on the file or flash memory stick NOT: Don't save it on a memory stick Use another type of backing storage | 2 marks |
| 2 | (h) | This point. 15 Kilobytes | 1 mark |

Total 15 marks

-
- 3 (a) These points. 2 marks
A subscription to an ISP (Internet Service Provider)
A web browser
- 3 (b) These points. 2 marks
www.pqrest.org.uk
http://www.pqrest.com
- 3 (c) (i) These points. 3 marks
A description of what subjects students can study at school
Tables showing the percentage of students awarded different GCSE grades
News about school sports teams
- 3 (c) (ii) Any reasonable, for example: 2 marks
Parents, Ofsted inspectors, governors
Allow: teacher and students only if qualified, for example, prospective teacher, prospective student, a teacher from another school.
NOT investors
- 3 (d) These points. 2 marks
Type of connection to the computer
Resolution of scanned image
- 3 (e) These points. 2 marks
Correct order is CDAB, 2m
Any 3 in order, 1m
For example, ACDB, CADB, CDBA
- 3 (f) Any reasonable, for example: 2 marks
The student may not have a bank or credit card
The student might have to wait for the scanner to be delivered
The scanner may not arrive
The wrong scanner may be delivered
The carrier may try to deliver when the student is at school and take the scanner back to the depot
The depot might be so far away the student cannot collect the scanner in a reasonable travelling time
The student may have to pay for postage or packaging
Personal details collected could be misused
NOT: There is no one to ask for help

Total 15 marks

4 (a) (i) This point. 1 mark

| Term | Label |
|------------|-------|
| (i) Window | B |

4 (a) (ii) This point. 1 mark

| Term | Label |
|-----------|-------|
| (ii) Icon | A |

4 (a) (iii) This point. 1 mark

| Term | Label |
|------------|-------|
| (iii) Menu | D |

4 (a) (iv) This point. 1 mark

| Term | Label |
|--------------|-------|
| (iv) Pointer | C |

4 (b) These points. 2 marks

The pointer changes shape when it has been clicked over an icon to show that a program is loading
The pointer may be a different shape over different parts of a window

4 (c) These points. 2 marks

Within 'My Music' there should be one folder for each different artist
Within the folder for an artist, there should be one folder for each album

4 (d) These points. 3 marks

The music files take up one gigabyte on the computer's hard disk so they would not fit on a CD
The music fan wants to play the music files on another computer
A backup copy is needed

4 (e) (i) This point. 1 mark

A PDA is a mobile device so that you can listen to music anywhere

4 (e) (ii) This point. 1 mark

A PDA is much larger and heavier than a flash memory stick

4 (f) (i) Any reasonable, for example. 1 mark

The CD collection might take up a lot of storage space
The CD collection is no longer needed as the computer has replaced the stereo's CD player

4 (f) (ii) This point. 1 mark

If the CDs are sold, the copyright permission to play them goes with the CDs.
NOT to make money

Total 15 marks

5 (a) (i) This point. 1 mark

| Term | Label |
|-----------------------|-------|
| (i) Feasibility study | D |

5 (a) (ii) This point. 1 mark

| Term | Label |
|----------------------------------|-------|
| (ii) Systems analysis and design | B |

5 (a) (iii) This point. 1 mark

| Term | Label |
|----------------------|-------|
| (iii) Implementation | A |

5 (a) (iv) This point. 1 mark

| Term | Label |
|--------------|-------|
| (iv) Testing | E |

5 (a) (v) This point. 1 mark

| Term | Label |
|----------------|-------|
| (v) Evaluation | C |

5 (b) These points. 2 marks
 Talk to other ICT specialists who have written ICT systems for doctors' surgeries
 Talk to employees of doctors' surgeries and find out what they do

5 (c) These points. 3 marks
 Some doctors have handwriting that is difficult to read
 Some drugs have names which are difficult to spell and these could be checked using a spelling checker
 There may only be one copy of a handwritten prescription. If a word processor is used, it is easier to store a record of what has been prescribed

5 (d) (i) These points. 4 marks
 Correct topology (line/bus or star, not ring), including at least three networked computers and a file server(allow: CPU, main computer; NOT LAN), 1m
 Networked hardware: e.g. printer or printer server, scanner, hub, wireless access point, etc., 1 each, max 2m
 Local hardware: printer, scanner, etc., 1 each, max 2m
 Connection to other networks, 1m

5 (d) (ii) Any reasonable, for example. 1 mark
 You can share networked hardware.
 Sharing hardware is cheaper per person so you may be able to buy faster or better quality

You can share data files
You can communicate with other users by e-mail, etc.

Total 15 marks

| | | | |
|--------------|----------|---|----------|
| 6 | (a) | These points. Beam A is broken before beam B if a boat is entering Beam B is broken before beam A if a boat is leaving | 2 marks |
| 6 | (b) | These points. When a boat enters the harbour, the computer adds 1 to the total When a boat leaves the harbour, the computer subtracts 1 from the total | 2 marks |
| 6 | (c) | These points. Two boats have entered at the same time side by side At the same time a long boat was entering, a short boat left A flock of seagulls has flown across the harbour mouth and broken both beams | 3 marks |
| 6 | (d) | Any reasonable, for example. Narrow the harbour mouth so that only one boat can enter or leave at the same time Adjust the software to discriminate between birds and boats Use bird scarers | 1 mark |
| 6 | (e) | Any reasonable, for example. So that only those people who should use the computer can use it So that the system can't be altered maliciously | 1 mark |
| 6 | (f) (i) | Any reasonable, for example. To deny access to someone who has found out a valid username and password but should not be using the computer | 1 mark |
| 6 | (f) (ii) | These points. Correct label in box, 1 each Correct pattern is CE 1 each, max 3m A | 3 marks |
| 6 | (g) | These points. Bullet points could be used to emphasise each step A larger font would make the documentation more readable | 2 marks |
| Total | | | 15 marks |

-
- 7 (a) (i) This point.
Bar Code Number 1 mark
- 7 (a) (ii) These points.
The key field is unique 2 marks
The key field identifies the record
- 7 (b) (i) These points. 1 mark
Baked Beans
Allow Baked or Beans
Allow Bar Code Number: 000157 024671
- 7 (b) (ii) This point. 1 mark
Chilli Sauce
Allow Sauce but NOT Chilli
Allow Bar Code Number: 002359 645009
- 7 (b) (iii) These points. 1 mark
Chilli Peppers and Sweet Corn
Allow (Peppers but NOT Chilli) and (Sweet or Corn)
Allow Bar Code Numbers: 031021 952776; 010046 001102
- 7 (c) This point. 1 mark
Quantity in Stock is less than the **Minimum Stock Level**
- 7 (d) These points. 2 marks
If the bar code will not scan, the checkout operator can enter the **Bar Code Number**
The checkout operator can read the printed numbers but not the bar code
- 7 (e) These points. 3 marks
When the check digit was re-calculated it was not the same as the check digit scanned
The bar code was not found in the database
The bar code has been damaged
- 7 (f) These points. 3 marks
CBEAD, 3m
Starts with C and ends with D, 1m
BE in order ignoring other labels, 1m

Total 15 marks

-
- 8 (a) These points. 3 marks
 Look at the layout of the streets and gardens in a residential neighbourhood
 Look at the route you could take from one town to another
 Look at shape of the United Kingdom and Europe
- 8 (b) These points. 3 marks
 Satellite pictures are low resolution and they are not clear enough to identify individuals
 Cameras on satellites cannot see everywhere inside buildings
 SeeEarth is not an interactive, real time system
- 8 (c) These points. 3 marks
 The location of petrol stations
 The location of schools
 The route taken by public transport
- 8 (d) (i) These points. 2 marks
 The council could plan new housing estates so that they fit in with existing communities
 The police could have layers showing where crimes were committed, and this would help them plan patrols
- 8 (d) (ii) Any reasonable, for example: 1 mark
 The council could see where to put new roads so they fit in with the existing road network, 1m
 Do not allow answers which are the same except that the user has changed, for example:
 An architect could plan a new housing estate so that it fits in with existing communities, 0m as this is the same as an excluded answer except for the user
 NOT
 Travellers can find the route from one place to the next
 The council could plan new housing estates so that they fit in with existing communities
 The police could have layers showing where crimes were committed, and this would help them plan patrols
- 8 (e) (i) These points. 2 marks
 Terrorists can see the layout of the grounds of public buildings they want to attack
 Burglars can see the most secluded route into a house
- 8 (e) (ii) Any reasonable, for example: 1 mark
 Some people believe that the layout of their property is private information and should not be publicly available
 NOT answers to 8(e)(i)
 Do not allow answers which are the same even if there is a clear distinction between the group causing the disadvantage, for example:
 Revolutionaries can see the layout of the grounds of public buildings they want to attack, 0m as this is the same as an excluded answer except
-

for the user

NOT: Anyone could find the location of your house

Total 15 marks