



General Certificate of Secondary Education

**Information and Communication
Technology 3528 Short Course
*Specification B***

3528/H Higher Tier

Mark Scheme

2007 examination – June series

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

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3528/H**GCSE Information and Communication Technology Specification B (Short Course)**

- | | | | |
|---|----------|--|---------|
| 1 | (a) | These points.
peter.jones@schoolsnet.ngfl.uk
pqr@manch.biz.net | 2 marks |
| 1 | (b) | Any reasonable, for example.
A new e-mail message opens, 1m
The e-mail is automatically addressed, 1m
A signature is automatically put in the message, 1m
The hyperlink changes colour, 1m | 2 marks |
| 1 | (c) (i) | This point.
A digital photograph | 1 mark |
| 1 | (c) (ii) | Any reasonable, for example:
A word processed document
A program
A spreadsheet
A slide show
A web page
An audio file, allow: music
A video file
A virus
NOT: a digital photograph or equivalent | 2 marks |

Total 7 marks

2	(a)	This point. B5	1 mark
2	(b)	This point. =E5-C6+D6	1 mark
2	(c)	Any reasonable task. Must be realistic. For example. Modelling future spending Calculating mortgage repayments Validating data Creating macros NOT displaying the balance carried forward each month in a graph	1 mark
2	(d)	These points. In the spreadsheet, highlight cell D7 and copy, 1m In the word processor, place the cursor at the insertion point and paste, 1m	2 marks
2	(e)	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

Total 7 marks

-
- 3 (a) This point. 1 mark
<http://www.pqrest.com>
- 3 (b) Any reasonable, for example. 3 marks
Purchase price
Cost of ownership
Type of connection to the computer
Resolution
Ability to scan different sizes of image and film strips
Compatibility with the computer
User manual available
Allow: ability to copy and print images when the computer is turned off
NOT: if it's working properly; the physical size of the computer
- 3 (c) These points. 2 marks
Uses a search engine or goes to an on line shop, 1m
Enters key words, 1m
Follows a directory structure, 1m
Looks at returned search list, 1m
- 3 (d) 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 post or packaging
Personal details collected could be misused
NOT: There is no one to ask for help

Total 8 marks

- 4 (a) (i) This point. 1 mark
- | Term | Label |
|----------|-------|
| (i) Icon | A |
- 4 (a) (ii) This point. 1 mark
- | Term | Label |
|-----------|-------|
| (ii) Menu | D |
- 4 (b) These points. 2 marks
- Within 'My Music' there should be one folder for each different artist, 1m
- Within the folder for an artist, there should be one folder for each album, 1m
- These points could be made by drawing a diagram or by describing the hierarchical folder structure or by giving a pathname, etc.
- 4 (c) (i) This point. 1 mark
- The music fan wants to play the music files on another computer
- 4 (c) (ii) Any reasonable, for example. 1 mark
- A backup copy is needed.
- The music files would not all fit on a CD.
- Allow: The music fan wants to play the music files on a different DVD player
- 4 (d) (i) Any reasonable, for example. 1 mark
- A PDA is a mobile device
- To listen to music away from the computer
- 4 (d) (ii) Any reasonable, for example. 1 mark
- A PDA is much larger and heavier than a flash memory stick
- You can use a flash memory stick on most computers by plugging it in the USB port but a PDA will need Bluetooth/WiFi enabled or a cable.

Total 8 marks

-
- 5 (a) This point. 1 mark
- | Term | Label |
|-------------------|-------|
| Feasibility study | D |
- 5 (b) This point. 1 mark
Talk to employees of doctors' surgeries and find out what they do
- 5 (c) This point. 2 marks
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. 3 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
Other servers clearly labelled, e.g. printer server, 1m
Networked hardware: printer, 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 8 marks

-
- 6 (a) These points. 2 marks
Beam B is broken before beam A if a boat is leaving
Beam A is broken before beam B if a boat is entering
- 6 (b) These points. 2 marks
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
- 6 (c) Any reasonable reason, 1m + any reasonable way of improving the design, 1m 2 marks
For example.
Two boats have entered or left at the same time side by side or in opposite directions, 1m
+ restrict the harbour entrance so it is only possible for one boat at a time to pass through whatever its direction, 1m
A flock of seagulls has flown across the harbour mouth and broken both beams, 1m
+ use bird scarers, 1m
or + adjust the software to discriminate between birds and boats, 1m
- 6 (d) Any reasonable, for example. 1 mark
So that only those people who should use the computer can use it
So that the system can't be altered maliciously

Total 7 marks

-
- 7 (a) This point. 1 mark
Bar Code Number
Allow: Bar or Code or Number, individually or any two, and
allow misspellings
- 7 (b) (i) This point. 1 mark
Chilli Sauce
Allow Sauce but NOT Chilli
- 7 (b) (ii) These points. 1 mark
Both: Chilli Peppers, Baked Beans
Allow (Peppers – not Chilli) and (Baked or Beans)
- 7 (c) This point. 1 mark
Quantity in Stock is less than the **Minimum Stock Level** or
equivalent
- 7 (d) These points. 3 marks
CBEAD, 3m
Starts with C and ends with D, 1m
BE in order ignoring other labels, 1m
- 7 (e) These points. 1 mark
Checkouts are not required by RFID as the computer
automatically scans the contents of your supermarket trolley and
charges the cost to your bank account

Total 8 marks

8 Any reasonable, for example. 7 marks

User: Council, max 1m per user, max 4 users

What they could do: Plan new housing estates, 1m, max 2m per user

Advantage:

The new housing estate can be planned to fit in with existing communities, 1m, max 2m per user

Disadvantage:

Services not previously mapped on layers may not be taken into account in planning, e.g. older sewers, 1m, max 2m per user

User: The police

What they could do: Plan patrols

Advantage: Layers showing where crimes were committed and at what time could help police schedule patrols where and when they would be most effective

Disadvantage: Areas with low incidences of crime could be ignored

Award marks for User and (what they could do or advantage or disadvantage) independently.

Terrorists can see the layout of the grounds of public buildings they want to attack, 2m

Burglars can see the most secluded route into a house, 2m

If the user is too vague for a mark, award marks for (what they could do or advantage or disadvantage). For example.

Some people believe that the layout of their house and garden is private information and should not be publicly available, disadvantage 1m

Do not allow answers which are conceptually the same even if there is a clear distinction between the groups causing the disadvantage.

For example:

Burglars can see the most secluded route into a house (2m) and bank robbers can see the most secluded route into a bank (conceptually the same, 0m).

Total 7 marks