



General Certificate of Secondary Education

Information and Communication Technology 3527H Short Course *Specification A*

3527/H Higher Tier

Mark Scheme

2009 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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Device	Input	Output	Storage
Mouse	✓		
Hard disk drive			✓
Laser printer		✓	
Microphone	✓		
Speakers		✓	

1 (a) Answers as in the table above Correct answer only 4

1 (b) Inkjet printer dot matrix printer
Plotter actuator
Screen/Monitor (VDU) motor
lights digital projector
Any 1 x1 1

1 (c) CD-ROM (drive) floppy disk (drive)
CD-RW (drive) memory stick/flash card/MP3
DVD ROM (drive) pen drive/USB drive
DVD RAM (drive) RAM
ROM
Any 1 x 1 1

2 B and I Correct answer only 2

3 (a) D Correct answer only 1

3 (b) A Correct answer only 1

3 (c) B Correct answer only 1

3 (d) C Correct answer only 1

4 (a) D Correct answer only 1

4 (b) E Correct answer only 1

4 (c) B Correct answer only 1

5 (a) G Correct answer only 1

5 (b) B Correct answer only 1

5 (c) F Correct answer only 1

5 (d) A Correct answer only 1

- 6
- Mark only the first four fields. Do NOT count those below,**
 NOT "Surname, First name, Address1, Address 2, Address 3 as
 already given in the question. Or street, town, city etc.
Ignore correct duplicate fields e.g. 3rd telephone number – these do
 not count in the FOUR
- | | |
|----------------------------|-------------|
| Title | at least 3 |
| Postcode | at least 7 |
| (or clear 3box gap 3 box) | |
| Telephone number (day) | at least 11 |
| Telephone number (evening) | at least 11 |
| Contact tel. Number | at least 11 |
| Mobile tel. Number | at least 11 |
- NOTE MAX TWO TELEPHONE NUMBERS**
- | | |
|--------------------|-------------------------------------|
| Fax number | at least 11 |
| E-mail address | at least 20(sensible splits)/memo |
| Date of Birth | at least 8(2-2-2/4) |
| Date of registered | at least 8(2-2-2/4) |
| Favourite genre | at least 10/list at least 3 options |
| Machine owned | at least 10 |
| Signature | memo |
| Photo | suitable box |
- Not gender**
 NB – could use the date at end of form
 Boxes only unless memo specified
 [] – open boxes are OK – boxes with small vertical lines are OK but
 dashes are NOT.
 Memo = lines/dashes/large box/dots IGNORE FILLING IN
 Tick correct field name – do not penalise lack of capitals
 Tick correct no. of boxes/memo field for corresponding field name. 4
 Count ticks - divide by 2 - round down **MAX 4 marks**
- 7 (a) Larger text
 Bold text
 Centre text Any 1 x 1 mark 1
- 7 (b) • Underline/italic
 • Bullet points/numbering
 • Text font type changed/Word art used
 • Coloured (text)/highlight colour
 • Tab
NB – cannot repeat any answer their answers from (a)
 Any 1 x 1 mark 1

7	(c)	<ul style="list-style-type: none"> • Picture/clipart added/graphic/logo • Drawing tools/auto shape • Tables • Font size made smaller • Text boxes • Borders/Border Art • Background – (pattern/shade/watermark)/colour • Text right justify • Change the line spacing • Template <p>Not just font by itself – or just change font. *** Cannot use any repeat answers from their answers to parts (a) or (b) in section (c) *** Can use answers from (a) or (b) in part (c) if not repeats from their answer to part (a) or (b). *** One bullet point can only score one mark.</p> <p>1 mark each for feature Any 3 x 1 mark</p>	3
8	(a)	Stock number Correct answer only	1
8	(b)	(i) It has the same key field as a book already in the list / key field must be unique/ (Stock) Number has already be used for 'The End' (another record).	1
8	(b)	(ii) Set up an auto key field generated by the computer Set up a suitable data validation routine (suitable description). Set up a primary key Not verification Any 1 x 1 mark	1
8	(c)	(i) Number in stock -3 (below zero) / cannot have a negative number in stock/ impossible value	1
8	(c)	(ii) Data validation Correct answer only	1
8	(d)	(i) A1013 A1024 (ignore, . space ok) Correct answer only	1
8	(d)	(ii) A1035 Correct answer only	1
9	(a)	Spreadsheet Correct answer only	1
9	(b)	D11 Correct answer only	1
9	(c)	Currency Correct answer only	1
9	(d)	=sum(D5:D13) allow D14 or D15 instead of D13 = D5+D6+D7+D8+D9+D10+D11+D12+D13 (+D14+D15) allow = sum(D5+D6+D7+D8+D9+D10+D11+D12+D13) (+D14+D15) allow = D5+D6+D7+D8+D9+D10+D11+D12+D13 (+D14+D15) allow with no = sign	1

9	(e)	<p>Reduce the cost of any item/ Reduce the number bought/ Take out an item</p> <p>*****</p> <p>Check to see if the costs are now within budget/validation</p> <p>*****</p> <p>If not- continue to reduce/ process is cyclic NOT vague statements such as “change”</p>	Any 2 x 1 mark	2
10	(a)	<p>Regular breaks/walk around/relaxation techniques/fresh air/change task so not on computers Defused/ suitable/ambient lighting in room/use of blinds Adjust monitor distance/brightness/anti-glare screen/screen filters Visit doctor/eye test/wear glasses if needed</p>	Any 2 x 1 mark	2
10	(b)	<p>Back/Neck pain/problems Headaches/ migraine Wrist problems/Carpel Tunnel Syndrome/RSI(finger problems) Possible radiation from monitor Possible epilepsy Stress</p>	Any 2 x 1 mark	2
11		<p>Stage 1 – look for DOWN 6 CLOSE *****</p> <p>Stage 2 – look for UP 1 (OR UP2 to UP9) - Think of this as UP n *****</p> <p>Stage 3 – look for RIGHT 7 DOWN 2 (OR DOWN3 to DOWN8) - Think of this as UP n+1 OPEN *****</p> <p>Stage 4 – returns the grip to the starting position UP 7 LEFT 7 This needs to be checked from the OPEN command Must not crash into the dock</p>		1 1 1 1
12	(a)	<p>Sending a text message/information /attachment/file/picture</p> <p>Over a communications network LAN/WAN/Internet /WAP phone/between computers/online NOT just electronic-mail</p>	Both parts for the mark	1
12	(b)	<p>Click the reply button on an e-mail received from this supplier</p>	Correct answer only	1
		<p>Use the address book set up in the e-mail software</p>	Correct answer only	1

12	(c)	<p>Quicker/faster Same delivery time anywhere in the world Free/cheaper to send than paying postage/send attachments at no extra cost. Less chance/won't get lost Send to many people at the same time Check/send when ready/immediately/any time (not when post is collected) Check/pick up e-mails from most places/anywhere (World wide) Don't have to leave the house to send it. NOT – does not need the receiver to be there</p>	Any 2 x 1 mark	2	
12	(d)	<ul style="list-style-type: none"> • PC broken, then no e-mail can be sent or received • Internet down, then no e-mail can be sent or received • Problems with hackers • Problems with viruses • Need a computer • Cannot send physical objects/packages <p>NOT SPAM</p>	Any 1 x 1 mark	1	
13	(a)	(i)	<p>Part of a record Contains one piece of information Heading for a column Any suitable example e.g. contains an item such as the surname</p>	Any 1 x 1 mark	1
13	(a)	(ii)	<p>Part of a file/ collection of related fields Information/fields relating to one person /member All information in a row of a database Any suitable example e.g. details about ONE member</p>	Any 1 x 1 mark	1
13	(b)		Staff would need training	Correct answer only	1
13	(c)		<p>Faster to search/find (NOT easier) Faster to sort/sort on multiple fields Faster/easier to edit/update Takes up less space Backup data Less/No chance of losing/misplacing records on a computer Faster/neater to graph data Access from outside Sports centre Faster/more attractive generation of reports Access by several people at one time Export to other applications (mail-merge, e-mail) More secure because</p>	Any 2 x 1 mark	2
14	(a)	(i)	<p>Car registration number (plate) / car ID/ driving license number Vehicle Identification Number/chassis number</p>		1
14	(a)	(ii)	Customer number / customer ID		1

14	(b)	Model of car Engine size	Correct answer only Correct answer only	1 1
14	(c)	Reduces/ faster data entry/fewer errors Reduced storage space Reduces redundancy /duplication of data i.e. saves you putting the same data in twice	Any 1 x 1 mark	1
15	(a)	<ul style="list-style-type: none"> • Can choose the most suitable day for the appointment • Can choose the most suitable time of the day for the appointment <p>NB – choose own appointment gets 1 mark only if neither of the above are clear.</p> <ul style="list-style-type: none"> • Can see which days/times are available/fit around other activities • Certain to be able to attend • Easier/faster to change appointments • Can book 24/7 / i.e. anytime 	Any 2 x 1 mark	2
15	(b)	Need to have a computer / internet access/powercut/computer problems/ cannot use computer Need to be “happy” with using a computer Possible dangers from hackers / viruses Physical problems with using a computer Identity theft concerns NOT financial worries / fraud	Any 1 x 1 mark	1
16	(a)	They do not have to spend money on travelling to work each day They do not have to spend time travelling to work each day	Correct answer only Correct answer only	1 1
16	(b)	Work can take longer as it is easier to be distracted at home They feel out of touch with those who work at head office every day	Correct answer only Correct answer only	1 1

17 (a)

Design issues

- Meets **user needs/performance criteria** from Analysis
- **Sketch plans** showing the layout of pages/plan of site map
- Planning **contents** for (what will go on) **each page**. Such as contact details or on-line orders.
- **DTP plans (max 2)**
 - Use of **colour** – text or background
 - Suitable **image /logo**
 - **“highlight”** key words/phrases/etc.
 - **Text size, style** and contrast (readable)
 - Consider data in **tables**
- **Correct software** needed /specification/decide the **programming language** to be used
- **Consistent layout of pages/** Plans for “Corporate image” /Master page/ **House style/Style sheets**
- **Test plan/test data/expected results**
- Plans/designs for **hyperlinks/hotspots** between pages/navigation bar
- Plans/designs for use of **sound/video** clips
- Plan/designs links to **other sites/e-mail link**
- Plan/designs of **help facility**
- Consider the **number of pages** in the web site/web space available
- Consider the **browser**
- Consider the **audience/age range** of potential users
- Consider the **loading time** for a page/reduce number or size of pictures/animations
- Consider **security** needed/avoid hackers/viruses
- Design types **of validation/** description of validation techniques – e.g. range check (second mark)
- **User friendly/** clarity ease of use.

Any 4 x 1 mark

4

17 (b)

Implementation and Testing issues

- **Put on/ upload/posting** it to the Internet
- Checking the **data/website** put in is **up-to-date**
- Checking the **data/website** put in is **accurate** (proof read, spelling and grammar)
- Implementation follows design/**user needs/performance criteria**
- Creating/setting up each page/insert **hyperlinks/hotspots**
- Creating/setting up images,/ a “hit” counter
- Creating/setting up **help** facilities
- Creating/setting up **video /sound**
- Creating/setting of **on-line account/ contact details**
- Creating/setting up the **security/hacking/viruses** of the website
- Creating/setting up **validation** rules
- Creating on-line forms (various possible)
- Testing the “**test plan**” from the test plan/ Validation on input fields work
- Testing **hyperlinks and hot spots** work within the site/ testing that links to orders/other web sites work/ Testing e-mail links work
- **Customer/Consumer testing** of the site/Beta testing
- Testing **help** facility
- Testing **video/sound** work
- **Correct errors** (and retest)
- Check if it works on different platforms (not computers)/ browser/resolution
- Testing on-line forms (various possible)

Any 4 x 1 mark

4