AQA

GCSE

Information and Communication Technology

45201 Unit 1 Systems and Applications in ICT

Mark scheme

4520

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Version: 1.0 Final

Mark schemes are prepared by the Lead Assessment Writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every associate understands and applies it in the same correct way. As preparation for standardisation each associate analyses a number of students' scripts. Alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Assessment Writer.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Further copies of this mark scheme are available from aqa.org.uk

Level of response marking instructions

Level of response mark schemes are broken down into levels, each of which has a descriptor. The descriptor for the level shows the average performance for the level. There are marks in each level.

Before you apply the mark scheme to a student's answer read through the answer and annotate it (as instructed) to show the qualities that are being looked for. You can then apply the mark scheme.

Step 1 Determine a level

Start at the lowest level of the mark scheme and use it as a ladder to see whether the answer meets the descriptor for that level. The descriptor for the level indicates the different qualities that might be seen in the student's answer for that level. If it meets the lowest level then go to the next one and decide if it meets this level, and so on, until you have a match between the level descriptor and the answer. With practice and familiarity you will find that for better answers you will be able to quickly skip through the lower levels of the mark scheme.

When assigning a level you should look at the overall quality of the answer and not look to pick holes in small and specific parts of the answer where the student has not performed quite as well as the rest. If the answer covers different aspects of different levels of the mark scheme you should use a best fit approach for defining the level and then use the variability of the response to help decide the mark within the level, ie if the response is predominantly level 3 with a small amount of level 4 material it would be placed in level 3 but be awarded a mark near the top of the level because of the level 4 content.

Step 2 Determine a mark

Once you have assigned a level you need to decide on the mark. The descriptors on how to allocate marks can help with this. The exemplar materials used during standardisation will help. There will be an answer in the standardising materials which will correspond with each level of the mark scheme. This answer will have been awarded a mark by the Lead Examiner. You can compare the student's answer with the example to determine if it is the same standard, better or worse than the example. You can then use this to allocate a mark for the answer based on the Lead Examiner's mark on the example.

You may well need to read back through the answer as you apply the mark scheme to clarify points and assure yourself that the level and the mark are appropriate.

Indicative content in the mark scheme is provided as a guide for examiners. It is not intended to be exhaustive and you must credit other valid points. Students do not have to cover all of the points mentioned in the Indicative content to reach the highest level of the mark scheme.

An answer which contains nothing of relevance to the question must be awarded no marks.

1	(a)		B (Keyboard) C (Microphone) D (Mouse) **Any 3x1**	3
1	(b)		A (Actuator) **Correct Answer Only**	1
1	(c)		Hardware is an item/you can touch or move/tangible Hardware refers to physical devices/components **Any 1x1** Software is a set of instructions/code Software refers to programs/applications/apps **Reject** can't touch//non-physical for software **Ignore** examples of hardware and software **Any 1x1**	2
1	(d)		A (Disk defragmentation software) **Correct Answer Only**	1
1	(e)		Electronic book Read/looked at/viewed/displayed on ... computer/mobile/electronic/device/digital/tablet/screen/download (**Accept** brand names in place of above as long as the context makes sense) **Reject** if clearly talking about the device itself and not the e-book **Reject** online, website and Internet without clarification **Any 1x1**	1

2	(a)	(i)	H (Subtitles) **Correct Answer Only**	1
2	(a)	(ii)	E (Playlist) **Correct Answer Only**	1
2	(a)	(iii)	D (Mute) **Correct Answer Only**	1
2	(b)	(i)	Downloaded music can be saved/stored (locally) No internet/Wi-Fi/mobile data needed to **play/listen/hear** Music can be played later offline/anytime/anywhere No risk of buffering/lagging once downloaded/when playing **Any 1x1**	1
2	(b)	(ii)	Takes up storage//takes up **disk/hard drive** space Higher risk of virus//malware issues DRM protection No access to social networking features offered by streaming services (making playlists for others) (Downloading) is likely to/**can/typically/usually/most cases** be/**more** expensive than/**most** charge for/**may** cost money/**may** have to pay/**more** money (Downloading) **takes time before whole song is downloaded** and song can be listened to whereas streaming allows user to start listening instantly Additional software typically required to play downloaded music **Reject** pay without clarification **Reject** legal issues **Reject** memory **Any 2x1**	2

3	(a)		Bold and left justification **Correct Answer Only**	1
3	(b)		Autoshape **Correct Answer Only**	1
3	(c)		Bullets **Correct Answer Only**	1
3	(d)		Footer **Correct Answer Only**	1
3	(e)		Word processing deals with text documents/type in text Word processing used for basic/simple documents (though can be large) Word processing used for letters, essays and memos **Any 1x1** DTP deals with text and graphics/images DTP used for posters, catalogues, flyers, leaflets and magazines DTP has more control of the page DTP uses frames, layouts and templates DTP allows for a wider range of page sizes DTP provides templates for folded publications DTP manages the printing of folded publications **Any 1x1**	2

4	(a)	(i) (ii) (iii)	Postcode//car registration **Any 1x1** Telephone/mobile/home/house number **Any 1x1** Date of birth//DOB//date of application//joinin **Reject** date without clarification **Any 1x1**	1 1 1
4	(b)		Questionnaire//survey Interview Online/e-mail questionnaire/form Chip and PIN Optical Character Reader (OCR) Optical Mark Reader (OMR) Bar code reader Magnetic stripe card Voice recognition Biometrics RFID tag **Reject** data capture/collection form **Any 2x1**	2
4	(c)		Many different report types can be used Single reports can be produced from different data files If the database is updated reports can be updated (when re-run) Data can be grouped (for example sub totals/counts) Reports can include headings/layouts (to improve readability) Reports can show selected information (rather than full database) **Reject** easier to see information without clarification **Any 1x1**	1
				6

5	(a)		Sound (effect) Animation Colour Scheme Background (Slide) transition Timing Kiosk Image/picture/clipart/autoshapes Text alignment Font size/style/type/bold/underline/italics/WordArt Video Chart Border **Reject** change/different font without clarification **Any 3x1**	3
5	(b)		Meet/be sensitive/appropriate/suitable to the need Reach a target audience/age group Pitch the style and tone at the right level Readability//clear purpose//put message/idea across Contain relevant/necessary information/content/pictures Use of consistent layouts **Accept suitable examples** **Any 2x1**	2

6	(a)	(i)	Features such as video may not be transferred Text formatting features may be lost **Any 2x1**	2
6	(a)	(ii)	Import – put information into another/new piece of software/that was not used to create it (for viewing and editing) **Any 1x1**	1
6	(a)	(iii)	Export - save information in one piece of software so it can be transferred to another piece of software **Any 1x1**	1
6	(b)		Image Picture Photo(graph) Graphics **Accept** singular/plural **Any 1x1**	1
6	(c)		Issues with Wi-Fi/Internet connection Connection from ISP not working at expected speed User/other employees downloading/uploading/transferring large/several files Many employees accessing at the same time Problems with router Virus affecting **internet connection/system** Computer software may need updating Browser add-ons may be affecting the speed **Accept** problems with modem **Reject** virus without clarification **Any 2x1**	2

7	(a)	(i)	D **(**Site) **Correct answer only**	1
7	(a)	(ii)	B (Shareware**)** **Correct answer only**	1
7	(b)		Protects intellectual property//legal recognition/claim Establishes the rights of the owner/maker/developer/belongs to/define how others use it/licence agreement Stops other people using software without/permission/consent/payment/claiming it as their own Prevents other people from stealing/copying the software (without permission) Prevents other people from distributing the software without permission **Any 2x1**	2
7	(c)		Encourage legal on demand services Issue warnings to customer IP address if breaking the law Deny service to customers/block people/take Internet away (that are illegally downloading) Block illegal file sharing websites Keep logs/track of all user activity/for use by law enforcement agencies/to report to police **Reject** firewall without clarification **Any 2x1**	2
7	(d)		Put ideas into your own words Cite/give credit/acknowledge sources/website address Quoting of text used Reference/bibliography **Reject** rearrange word/sentence order **Any 2x1**	2

8	(a)		Smallest - Byte (B) **Ignore** spelling **Accept** abbreviations e.g. B **Any 1x1** Largest -Terabyte (Tb) **Ignore** spelling **Accept** abbreviations e.g. Tb **Any 1x1**	2
8	(b)		Jobs are printed/stored on a first-come, first-served queuing/order basis The computer works at normal speed/unaffected Enables the computer/user to get on with other tasks Buffer cleared when all printing is completed **Any 2x1**	2
8	(c)	(i)	Stores data/information/software you are working on/current/temporarily Lost when power is turned off//volatile memory//requires power Stores modules for applications Handle open windows and switching between them (data swaps) System slows down when many applications open More RAM may improve performance Stores operating systems and drivers while in use **Any 2x1**	2
8	(c)	(ii)	Stores system level programs (BIOS)/operating system Usually cannot be modified by user/can only be read Not lost when power is turned off/non-volatile memory **Accept** programmable and erasable ROM can be edited in some circumstances **Any 2x1**	2

9	(a)		Maintain/control/monitor/measure/check the light within the greenhouse Keep the light within limits/bounds Maintain the optimum light for the greenhouse Make sure the greenhouse is not too dark or too light/correct/right level To ensure the fruit gets the consistent amount of light to grow **Any 1x1**	1
9	(b)		The use of sensors to capture input to the controlling program **Correct answer only**	1
9	(c)	(i)	Turn on/up/increase (artificial) lighting Open shades/blinds **Any 1x1**	1
9	(c)	(ii)	Turn off/down/decrease (artificial) lighting Close shades/blinds **Any 1x1**	1
9	(d)	(i)	More precise control Can track system performance Can be replicated across other greenhouses Reduces human error Operates '24/7'/constant Automated/automatic response/adjustments Fewer staff required **Reject** accuracy **Any 2x1**	2
9	(d)	(ii)	More complicated to implement and understand Time lag before system respondsomputer Equipment/system/sensors/lighting/cp could break/crash/malfunction Expensive to install/set-up//equipment is expensive **Reject** expensive//break without clarification **Any 1x1**	1

10	(a)	(i)	Unemployment//redundancy//financial/family problems 'Decline' in local area Local businesses/economy affected Possible increase in crime People leaving community (to find other work) Opportunities for high skilled/programming jobs **Any 2x1**	2
10	(a)	(ii)	Can work 24 hours without breaks/getting tired Don't need to be paid wages Don't go on strike/fall sick Reduction in accidents involving humans Increased productivity Avoids human error Consistency of performance **Any 2x1**	2
10	(b)		Each individual does not have their own desk A flexible working practice to save office space Where people share/find available desk space//move around **Any 2x1**	2
10	(c)	(i)	Allowing people to work at home while still being able to contact the office easily **Correct Answer Only**	1
10	(c)	(ii)	Less office space needed/smaller premises/reduced rent Reduce carbon footprint/energy costs International employees/skills/experts called upon **Any 1x1**	1
10	(c)	(iii)	Harder to keep track of the progress of employees Harder to maintain 'standards'/effort Loss of management 'control' Data security and confidentiality issues **Any 1x1**	1

10	(c)	(iv)	Work hours you want Fit work around family/lifestyle/schedule Save time travelling Save travelling costs No commute/no need to leave home **Any 1x1**	1
10	(c)	(v)	Feel pressure to be available to work 'anytime' Work longer because no clearly defined 'work day' Miss out on social interaction/collaboration/help at workplace//feel isolated Miss out on career opportunities Feel pressure from family to do non-work activities **Reject** get distracted (by family members) **Any 1x1**	1

11	(a)		(Design posters telling staff to) switch off the lights when not required within the computer room (Design posters telling staff to) switch off monitors and computers when not in use/automatically Install lights that automatically switch off when no movement is detected within the computer room Reduce brightness on monitors (Buy/use) low power/energy saving PCs **Reject** switching to renewable energy **Any 2x1**	2
11	(b)		Use recycled paper when printing Use recycled print cartridges Only print if you have to/final copy/version Set printers to default for double-sided/print on both sides Print multiple pages per sheet Set printers for draft/grey printing/black & white/monochrome Use print preview to check work before printing Recycle used paper/printouts after printing Ration printing/printer credits **Any 2x1**	2
11	(c)		Fewer bin lorries will be needed Less fuel will be used by bin lorries **Any 2x1**	2
11	(d)		Usage can be viewed online **Any 1x1**	1

11(e)	**No rewardable material 0 marks**	
	Lower mark range 1 – 2 marks State/give simple **statement(s)** or example(s) relating to reliability of information. Statement(s) relate to the ideas below. Sometimes a bullet list of statements (no description).	
	Mid mark range 3 – 4 marks There is evidence of **some understanding** shown through the use of at least **two** mostly correct **descriptions** of ways to check the reliability of information.	
	High mark 5 marks There is evidence of a **clear understanding** shown through the use of at least **two correct descriptions** of ways to check the reliability of information.	
	Staff at Arkpool District Council use the Internet to carry out research. Describe the ways in which staff could evaluate whether any information gathered is reliable. **Key Issues:** • Look at author (expertise level) • Look at sponsors • Check for bias • Check published date • Check who owns copyright • Check with another source (verify) • See if it's primary or secondary information • Check if information contains errors • Check if trusted/reliable source	
		5

12	(a)		Menu/buttons/labels Navigate/link from option to option/leading to another screen/page/different parts Front end/hide the database window Run/open/select queries/reports/forms/tables So users don't need technical knowledge **Any 2 x 1**	2

12	(b)		Adaptable to different purposes Data hard to read in big tables//less confusing//easier to read Data entry efficiency/more efficient/faster to use/less time consuming Data entry accuracy//fewer errors/mistakes Professional layouts **Reject** quicker, easier and efficient without clarification **Any 2 x 1**	2
12	(c)	(i)	Same invoice layout/format/style/template Produced for all customers without manually entering information (names, addresses, products and prices) Quick way to generate **many** invoices Reuse data – reduced risk of error/no human error Customer can have their invoice instantly instead of waiting for someone to type it up If all invoices template need changing then only one template needs changing **Reject** quicker without clarification **Any 2 x 1**	2
12	(c)	(ii)	May seem impersonal **Correct Answer Only**	1

12 (d)	**No rewardable material 0 marks**	
	Lower mark range 1 – 2 marks State/give simple **statement(s)** or example(s) relating to the advantages to society from globalisation through ICT. Statement(s) relate to the ideas below. Sometimes a bullet list of statements (no description).	
	Mid mark range 3 – 4 marks There is evidence of **some understanding** shown through the use of at least **two** mostly correct **descriptions** and examples of the advantages to society from globalisation through ICT.	
	High mark 5 marks There is evidence of a **clear understanding** shown through the use of at least **two correct descriptions** and examples of the advantages to society from globalisation through ICT.	
	The growth in the use of ICT has made business globalisation possible. Describe the advantages to society from the development of globalised business activity. **Key Issues:** • Customers can buy anytime • Customers can buy from anywhere • Reducing barriers between countries/increased trade • Opportunities for cooperation • Growth and innovation in developing countries • Wider choice for customer • Increased competition and lower prices • Increased innovation/share ideas • Employment opportunities • Economic benefits	
		5

13	(a)	(i)	C3:C9 C3 to C9 **Ignore** = sign before or after C3:C9 **Ignore** =sum **Ignore** brackets **Any 1x1**	1
13	(a)	(ii)	='Student B'!C5 **Correct Answer Only**	1
13	(b)		'Automatic' = the computer recalculates the formulae without user intervention **1x1** 'Recalculation' = occurs when the cells that the formula depends on have changed. **1x1**	2
13	(c)		Underlying calculations can be carried out elsewhere allowing you to display the results/outcome No need to have identical data entered/reduced redundancy Reduced **copying/repetition** errors Data integrity/consistency/updated in an effective way Keeps the data logically separate If done on one worksheet it would get very busy and 'messy' **Any 1 x1**	1
13	(d)	(i)	Pie **Ignore** extra descriptive words e.g. 3D, chart, etc **Any 1 x1**	1
13	(d)	(ii)	Title Key/legend (Data) labels//show percentages/values/totals Different colours for each segment/pieces/sectors/slices **Reject** colour without clarification **Any 1 x 1**	1

13 (e)	**No rewardable material 0 marks**	
	Lower mark range 1 – 2 marks State/give simple **statement(s)** or example(s) relating to the advantages of using personal websites. Statement(s) relate to the ideas below. Sometimes a bullet list of statements (no description).	
	Mid mark range 3 – 4 marks There is evidence of **some understanding** shown through the use of at least **two** mostly correct **descriptions** and examples of the advantages of using personal websites.	
	High mark 5 marks There is evidence of a **clear understanding** shown through the use of at least **two correct descriptions** and examples of the advantages of using personal websites.	
	Describe the advantages to a user of creating their own personal website rather than using websites within social networking accounts. **Key Issues:** • Personal websites provide more help and solutions (webhosting services) • More control over domain name with personal websites • Account templates have fewer limits on formatting than Social networking/select own designs • Account templates have fewer limits on *type* of content than Social networking • Account templates have fewer limits on *amount* of content than Social networking • Control own advertising and sponsors • No need to sign up for social networking • Social networking sites have corporate look and feel on all pages • Social networking sites are branded and not personal • Extra rules are enforced by social networking sites, not just the courts or laws of the country	

	• Social networking sites are ad-based • Social networking sites can see everything inside user accounts • Social networking sites might censor if they think they will lose advertising revenue from posted thoughts • Social networking sites have privacy issues- use of personal data **Reject** cyberbullying and e-safety issues	
		5

Mark Scheme

Read the full answer first before you start to mark it.	**Q14**
No rewardable material	**0 marks**
Level 1 Lower mark range **Subject Criterion Context** Simple example(s) supported by no comments limited to the lower end (for example a bulleted list). At the higher end of the mark range there is a simple statement about at **least one** possible advantage or disadvantage of automated stock control. **Quality of Written Communication** Specialist vocabulary has been used **inappropriately** or **not at all**. **Much** of the text is **legible** and **some** of the meaning is **clear**. There are **many** errors of spelling, punctuation and grammar but it should still be possible to understand **much** of the response.	**1-3 marks**
Level 2 Lower mid mark range **Subject Criterion Context** There is evidence of **some understanding** shown by considering at the **lower end** of this mark range **at least two** sensible brief advantages **or** disadvantages of automated stock control. **Examples are supported by limited descriptions.** At the **higher end** of this mark range **at least three** points need to be considered including advantages **and** disadvantages. **Examples are supported by limited descriptions.** **Quality of Written Communication** The candidate has used a form and style of writing which has **some** deficiencies. Ideas are not **always** clearly expressed. Sentences and paragraphs may **not** be well-connected or **at times** bullet points may have been used. Specialist vocabulary has been used on a **limited** number of occasions. **Most** of the text is **legible** and **some** of the meaning is **clear**. There are **some** errors of spelling, punctuation and grammar but it	**4-6 marks**

should still be possible to understand **most** of the response.	
Level 3 Higher mid mark range **Subject Criterion Context** There is evidence of a more **developed understanding** shown by **explaining** sensible issues that each look at possible advantages **and** disadvantages of using automated stock control. At **least four** points need to be considered, including advantages **and** disadvantages. **Examples are supported by explanations**. **Quality of Written Communication** The candidate has **mostly** used a form and style of writing **appropriate** to purpose and has expressed some complex ideas **reasonably clearly** and **fluently**. The candidate has usually used **well linked** sentences and paragraphs. Specialist vocabulary has been used on a number of occasions but **not always appropriately.** Text is **legible** and **most** of the meaning is **clear**. There are **occasional** errors of spelling, punctuation and grammar.	**7-9 marks**
Level 4 High mark range **Subject Criterion Context** There is evidence of a **clear understanding** shown by clearly **discussing** sensible issues that each look at possible advantages **and** disadvantages of using automated stock control. At **least four relevant** points need to be considered, including advantages **and** disadvantages. **Examples are well supported by reasoned discussions.** **Quality of Written Communication** The candidate has selected and used a form and style of writing **appropriate** to purpose and has expressed complex ideas **clearly** and **fluently**. Sentences and paragraphs follow on from one another clearly and coherently. Specialist vocabulary has been used **appropriately** throughout.	**10-12 marks**

Text is **legible** and the meaning is **clear**. There are **few** if any errors of spelling, punctuation and grammar.	
Quality of Written Communication Skills The candidate's quality of written communication skills will be one of the factors influencing the actual mark an examiner will give within a level of response. The quality of written communication skills associated with each level is indicated above.	
Discuss the advantages and disadvantages to a business of using automated stock control. **Possible advantages of automated stock control** • Happens automatically(24/7) • Instant feedback on stock levels • Sales/stock reports generated automatically • Tied to loyalty cards/customer tracking • Know you have the right amount in stock all the time • Reduce human error/increased accuracy • Orders can be made automatically when stock is running low • Saves time of staff from manually counting • Saves staff costs rather than manual stock check • Just in time stock control to minimise expenditure and storage space required • Link online (e-commerce) website to actual shop **Possible disadvantages of automated stock control** • Might need bespoke software • Expensive hardware and software • Changeover from manual to automated means business will have to shut for a period of time • Disruptive to business if system fails • Specialist IT support staff/programmer/engineer needed • Risk of fraud • Regular manual checks still need to be carried out **Reject** unemployment issue (unrelated to a business)	

Mark Scheme

Read the full answer first before you start to mark it.	**Q15**
No rewardable material	**0 marks**
Level 1 Lower mark range **Subject Criterion Context** Simple example(s) supported by no comments limited to the lower end (for example a bulleted list). At the higher end of the mark range there is a simple statement about at **least one** possible way health problems can be minimised. **Quality of Written Communication** Specialist vocabulary has been used **inappropriately** or **not at all**. **Much** of the text is **legible** and **some** of the meaning is **clear**. There are **many** errors of spelling, punctuation and grammar but it should still be possible to understand **much** of the response.	**1-3 marks**
Level 2 Lower mid mark range **Subject Criterion Context** There is evidence of **some understanding** shown by giving examples of at **least two** reasonably valid brief **statements** of health problems. Possible ways to minimise health problems are only briefly considered. At the **higher end** of this mark range **at least three** health problems need to be considered. Possible ways to minimise health problems are only briefly considered. **Quality of Written Communication** The candidate has used a form and style of writing which has **some** deficiencies. Ideas are not **always** clearly expressed. Sentences and paragraphs may **not** be well-connected or **at times** bullet points may have been used. Specialist vocabulary has been used on a **limited** number of occasions. **Most** of the text is **legible** and **some** of the meaning is **clear**. There are **some** errors of spelling, punctuation and grammar but it should still be possible to understand **most** of the response.	**4-6 marks**
Level 3 Higher mid mark range **Subject Criterion Context** There is evidence of a more **developed understanding** shown through the consideration of at	**7-9 marks**

least four health problems **and** descriptions of ways they can be minimised. **Quality of Written Communication** The candidate has **mostly** used a form and style of writing **appropriate** to purpose and has expressed some complex ideas **reasonably clearly** and **fluently**. The candidate has usually used **well linked** sentences and paragraphs. Specialist vocabulary has been used on a number of occasions but **not always appropriately.** Text is **legible** and **most** of the meaning is **clear**. There are **occasional** errors of spelling, punctuation and grammar.	
Level 4 High mark range **Subject Criterion Context** There is evidence of a **clear understanding** shown through the consideration of at **least four** health problems and the discussion of **valid** ways that they can be minimised. Examples are well supported by reasoned arguments. **Possible solutions are clearly discussed.** **Quality of Written Communication** The candidate has selected and used a form and style of writing **appropriate** to purpose and has expressed complex ideas **clearly** and **fluently**. Sentences and paragraphs follow on from one another clearly and coherently. Specialist vocabulary has been used **appropriately** throughout. Text is **legible** and the meaning is **clear**. There are **few** if any errors of spelling, punctuation and grammar.	**10-12 marks**

Quality of Written Communication Skills The candidate's quality of written communication skills will be one of the factors influencing the actual mark an examiner will give within a level of response. The quality of written communication skills associated with each level is indicated above.	
Discuss how potential health problems, related to the prolonged use of ICT in the workplace, can be minimised. **Possible health problems/ways to minimise** • Using ICT for **long** periods – breaks • **Stress** – breaks, see doctor • **Eye** problems - lighting, eye tests, glasses, blinds (sunlight), anti-glare screens • **RSI/Carpel Tunnel Syndrome** – wrist rests, breaks, ergonomic keyboard • **Back** and neck problems – adjustable seating, footstools • **Muscle and joint** problems – stretching, breaks • **Deep Vein Thrombosis (DVT)** – breaks, movement, posture • **Headaches/migraines** – breaks/lighting • **Ergonomics** - adjustable seating/monitors **Reject** obesity issues	

Full Course				
Section A				
Quest No	**Part of Specification Covered**	**AO1**	**AO2**	**AO3**
1 (a)	3.1.2 (a) / 3.1.2 (a)	3		
1 (b)	3.1.3 (b) i / 3.1.2 (c)	1		
1 (c)	3.1.1 (c) ii / 3.1.1 (a)		1	1
1 (d)	3.1.1 (c) i	1		
1 (e)	3.1.1 (e) / 3.1.1 (b)		1	
2 (a) (i)	3.2.5 (f) /3.2.5 (e) Subtitles	1		
2 (a) (ii)	3.2.5 (f) /3.2.5 (e) Playlist	1		
2 (a) (iii)	3.2.5 (f) /3.2.5 (e) Mute	1		
2 (b) (i)	3.2.5 (f) /3.2.5 (e) Streaming and downloading music	1	1	
2 (b) (ii)	3.2.5 (f) /3.2.5 (e) Streaming and downloading music		1	
3 (a)	3.2.5 (a) /3.2.5 (a) i generic features	1		
3 (b)	3.2.5 (a) /3.2.5 (a) i generic features	1		
3 (c)	3.2.5 (a) /3.2.5 (a) i generic features	1		
3 (d)	3.2.5 (a) /3.2.5 (a) i generic features	1		
3 (e)	3.2.5 (b) /3.2.5 (a) ii	1	1	
4 (a) (i)	3.2.2 (d) (i) / 3.2.2 (d) data capture form	1		
4 (a) (ii)	3.2.2 (d) (i) / 3.2.2 (d) data capture form	1		
4 (a) (iii)	3.2.2 (d) (i) / 3.2.2 (d) data capture form	1		
4 (b)	3.2.2 (d) i 3.2.2 (d)	1	1	
4 (c)	3.2.8 (f) / 3.2.8 (f)		1	
5 (a)	3.2.5 (d) i / 3.2.5 (c) i	3		
5 (b)	3.2.2 (f) / 3.2.2 (f)		1	1
6 (a) (i)	3.2.2 (h)	2		
6 (a) (ii)	3.2.2 (h)	1	1	
6 (b)	3.2.2 (h)	1		
6 (c)	3.2.2 (h)	1	1	
7 (a)	3.3.1 (c)	1		
7 (a)	3.3.1 (c)	1		
7 (b)	3.3.1 (c)	1	1	
7 (c)	3.3.1 (c)	1	1	
7 (d)	3.3.1 (c)	1	1	
8 (a)	3.1.3 (a) (i)	2		
8 (b)	3.1.3 (a) (i)	2		

8 (c)	3.1.3 (a) (ii)			2
8 (c)	3.1.3 (a) (ii)			2

9 (a)	3.2.11 (c) Control-feedback loop	1				
9 (b)	3.2.11 (c) Control-feedback loop	1				
9 (c) (i)	3.2.11 (c) Control-feedback loop		1			
9 (c) (ii)	3.2.11 (c) Control-feedback loop		1			
9 (d) (i)	3.2.11 (c) Control-feedback loop	1	1			
9 (d) (ii)	3.2.11 (c) Control-feedback loop		1			

10 (a) (i)	3.3.3 (c) ICT impact on communities			2		
10 (a) (ii)	3.3.2 (a) automated production		1	1		
10 (b)	3.3.2 (b) ii hot desking	1	1			
10 (c) (i)	3.3.2 (b) ii teleworking	1				
10 (c) (ii)	3.3.2 (b) ii teleworking		1			
10 (c) (ii)	3.3.2 (b) ii teleworking		1			
10 (c) (iv)	3.3.2 (b) ii teleworking		1			
10 (c) (vi)	3.3.2 (b) ii teleworking		1		Total	Paper
FC		40	23	9	72	[72]

Section B						
11 (a)	3.3.3 (b) ii		1	1		
11 (b)	3.3.3 (b) ii		1	1		
11 (c)	3.3.2 (g)	2				
11 (d)	3.3.2 (g)	1				
11 (e)	3.3.2 (e) ii / 3.3.2 ii (d)	2	1	2		

12 (a)	3.2.8 (c) / 3.2.8 (c) switchboard	1	1			
12 (b)	3.2.8 (b) / 3.2.8 (b) input forms		1	1		
12 (c) (i)	3.2.8 (g) / 3.2.8 (g) mail merging	1	1			
12 (c) (ii)	3.2.8 (g) / 3.2.8 (g) mail merging		1			
12 (d)	3.3.2 (a) / 3.3.2 (a) globalisation	2	1	2		

13 (a) (i)	3.2.7 (b) / 3.2.7 (b)	1				
13 (a) (ii)	3.2.7 (b) / 3.2.7 (b)	1				
13 (b)	3.2.7 (b) / 3.2.7 (b)		1	1		
13 (c)	3.2.7 (b) / 3.2.7 (b)		1			
13 (d)	3.2.7 (b) / 3.2.7 (b)	1				
13 (d)	3.2.7 (b) / 3.2.7 (b)		1			
13 (e)	3.3.2 (e) / 3.3.2 (d)	2	1	2	Total	Paper
FC		14	12	10	36	[36]

Section C						
14	3.3.2 (a) / 3.3.2 (a)	3	3	6		
15	3.3.1 (d) i, ii / 3.3.1 (c) i, ii health	3	3	6	Total	Paper

problems, alleviating health problems					
FC	3	3	6	12	[12]

				Total	Paper
FC Total	57	38	25	120	[120]
FC AO Weightings	45-75	15-45	15-45		