



General Certificate of Secondary Education

**Information and Communication
Technology (Short Course)**

XXXXXX

**XXXXXX Systems and Applications in
ICT**

Specimen Mark Scheme

20XX 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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Section A

1	(a)		C (Printer)	Correct answer only	(1 mark)
1	(b)	(i)	E (Scanner)	Correct answer only	(1 mark)
1	(b)	(ii)	B (joystick)	Correct answer only	(1 mark)
1	(c)		graphics digitiser touch screens/pad light Pen mouse sensor	concept Keyboard OCR reader digital camera bar code reader graphics tablet	MICR reader OMR reader
			Any 1 x 1 mark		(1 mark)
1	(d)		Notebook computer	Correct answer only	(1 mark)
			PDA	Correct answer only	(1 mark)
2	(a)		Features E-mail capability Functionality of a personal organiser Built-in camera QWERTY keyboard Touch screen/D-pad Accelerometer Navigation system Read documents in various formats (PDF/Microsoft Office) Media software Internet browsers Contact list		(3 marks)
			Any 1 x 3 marks		
2	(b)		An explanation that a Smartphone has an identifiable operating system that allows applications to be added.		(1 mark)
			An explanation/link/judgement needs to be made that this allows additional flexibility and enhanced possibilities for data processing, connectivity and entertainment. 2 marks could be combined into clear explanation.		(1 mark)
3	(a)	(i)	C (Graphics)	Correct answer only	(1 mark)
3	(a)	(ii)	A (Database)	Correct answer only	(1 mark)
3	(a)	(iii)	B (Desktop publishing)	Correct answer only	(1 mark)
3	(b)		Spreadsheet (Excel)	Correct answer only	(1 mark)
3	(c)		Number	Correct answer only	(1 mark)
3	(d)		=B4/C4	Correct answer only	(1 mark)
3	(e)		An explanation of how the amounts in column B could be changed (explain how some could go up/increase and some could go down/decrease, with possible examples).		(1 mark)
			There must be an explanation that the student then needs to make judgements by checking on the Money left per week in D24, and this must NOT fall below zero.		(1 mark)
4	(a)		text/letter/information (or similar) sent over the Internet/comms. Network/ from computer to computer		(1 mark) (1 mark)
4	(b)		Junk/ unwanted e-mails Describe that these are unsolicited, take time to read, fill Inboxes		(1 mark) (1 mark)

Section B

6	(a)	<p>A way for one person to meet up with other people on the Net Contacting other people/friends To arrange to meet/ find their interests/ etc. To share digital files (e.g. photos). <i>1 mark for 'who' and 1 mark for 'why'</i> Any 2 description x 1 mark</p>	(2 marks)
6	(b)	<p>You can find personal details about people You can contact people you know/meet new people You can keep in contact with 'friends' who don't live nearby You can meet people with similar interests/ niche networking Any 2 reasons x 1 mark</p>	(2 marks)
6	(c)	<p>Identity theft Members presenting themselves dishonestly/lying about themselves Meeting people who are not what they appear to be (from the website) Viruses Hacking Any 2 disadvantages x 1 mark</p>	(2 marks)

6	(d)	<p>No rewardable material 0 marks</p> <p>Lower mark range 1 – 2 marks There are simple statements of advantages. These statements of advantages are from those given below.</p> <p>Mid mark range 3 – 4 marks There is evidence of some understanding shown through the use of mostly correct advantages that describe the advantages of using a social network site compared to using a web log. Advantages given are supported by some relevant description. These examples will cover a range of advantages from those given below.</p> <p>High mark 5 marks There is evidence of a clear understanding shown through the use of correct comparison that clearly discuss the advantages of using a social network site compared to using a web log. Advantages given are well supported by reasoned arguments. These advantages will cover several advantages from those given below. Advantages to be considered Social networking websites take a fixed format/appear the same whereas web logs are set up by the creator and can take any appearance Social networking websites have a ‘ready made’ audience/Internet presence whereas web logs have to build up a following Social networking websites are easy/quick to arrange meetings whereas web logs don’t easily provide that facility Social networking websites are a many to many/one facility whereas web logs are a one to one facility Social networking websites have many users whereas web logs have to become known Social networking websites allow interaction whereas web logs receive and post comments Social networking websites have many functions (i.e. they may include blogs etc.) where as web logs are restricted to posting personal diaries news etc. Social networking websites create an online community whereas web logs may only be someone’s personal diary Social networking websites encourage repeat visits by requesting new users to inform friend they have a presence on the network whereas it is down to the web log posting to maintain interest Social networking websites allow members to exchange digital files (photos, etc.) whereas web logs don’t allow interaction</p>	<p>(0 marks)</p> <p>(1-2 marks)</p> <p>(3-4 marks)</p> <p>(5 marks)</p>

7	(a)		Advice which includes any of the following: Use a combination of letters (case) / numbers / other characters Make it at least (seven) characters long Make it so it is NOT easy to guess Make it so you will remember it Don't tell anyone your password / don't write it down Change it regularly Any 2 x 1 mark	(2 marks)
7	(b)	(i)	Someone who is involved in illegal/unauthorised access to a computer system.	(1 mark)
		(ii)	Software such as Firewall, anti-spyware Any 1 x 1 mark	(1 mark)

7	(c)	<p>No rewardable material 0 marks</p> <p>Lower mark range 1 – 2 marks There are simple statements of issues and solutions. These statements of issues or solutions are from those given below.</p> <p>Mid mark range 3 – 4 marks There is evidence of some understanding shown through the use of mostly correct identification of possible health issues. Candidates describe these possible issues and identify possible solutions. These are well supported by reasoned arguments. A range of issues and solutions will be covered from those given below.</p> <p>High mark range 5 marks There is evidence of a clear understanding shown through the use of correct identification of possible health issues. Candidates clearly discuss these possible issues and clearly identify possible solutions. These are well supported by reasoned arguments. Several issues and solutions will be covered from those given below.</p> <p>Health issues Back/Neck pain/problems Headaches Eye strain Wrist problems/Carpel Tunnel Syndrome/RSI(finger problems) Possible radiation from monitor/epilepsy from monitor</p> <p>Health issues linked to a suitable solution; Regular breaks/walk around/relaxation techniques/fresh air Correctly adjusted chair/back support correct in chair/footrest Adjust monitor distance/brightness Visit doctor/eye test Use wrist support/ergonomically designed keyboard Check radiation level/change type of monitor/possible “screen shield”</p> <p>Safety issues Trailing wires Electrical faults Overload sockets/supply</p> <p>Safety issues linked to a suitable solution; Make sure all leads are secure/out of reach Repair faults/report faults Regular service and checks/PAT tests Use of blinds/fluorescent diffusers Install additional sockets</p>	<p>(0 marks)</p> <p>(1-2 marks)</p> <p>(3-4 marks)</p> <p>(5 marks)</p>
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Section C

8			No rewardable material	0 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 below.	
			Level 1 Lower mark range Subject Criterion Context There are simple statements about at least one valid advantage or one valid disadvantage of the Internet access to the owner of the bookshop. Examples are supported by limited descriptions. Examples include: breaching/complying with Acts of Parliament; maintaining a safe and secure online presence; contacting people with similar/differing viewpoints; changing/increasing market presence reducing environmental issues of wasting natural resources (reduce paper). Quality of Written Communication The candidate has used a form and style of writing which has many deficiencies. Ideas are not often clearly expressed. Sentences and paragraphs are often not well-connected or at times bullet points may have been used. 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)

		<p>Level 2 Lower mid mark range</p> <p>Subject Criterion Context There is evidence of some understanding or use shown by giving examples of at least one valid advantage and one valid disadvantage of Internet access to the owner of the bookshop. Examples are supported by limited descriptions. Examples include: breaching/complying with Acts of Parliament; maintaining a safe and secure online presence; contacting people with similar/differing viewpoints; changing/increasing market presence reducing environmental issues of wasting natural resources (reduce paper).</p> <p>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.</p>	(4-6 marks)
		<p>Level 3 Higher mid mark range</p> <p>Subject Criterion Context There is evidence of a more developed understanding shown through the use of suitable examples that describe at least one valid advantage and one valid disadvantage of the Internet access to the owner of the bookshop. Examples are supported by suitable descriptions. Examples include: breaching/complying with Acts of Parliament; maintaining a safe and secure online presence; contacting people with similar/differing viewpoints; changing/increasing market presence; reducing environmental issues of wasting natural resources (reduce paper).</p> <p>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.</p>	(7-9 marks)

		<p>Level 4 High mark range</p> <p>Subject Criterion Context There is evidence of a clear understanding shown through the use of relevant examples that discuss at least one valid advantage and one valid disadvantage of the Internet access to the owner of the bookshop. Examples are well supported by reasoned arguments. Examples include: breaching/complying with Acts of Parliament; maintaining a safe and secure online presence; contacting people with similar/differing viewpoints; changing/increasing market presence; reducing environmental issues of wasting natural resources (reduce paper).</p> <p>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.</p>	<p>(10-12 marks)</p>
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9		No rewardable material	(0 marks)
		<p>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 below.</p>	
		<p>Level 1 Lower mark range</p> <p>Subject Criterion Context There are simple statements about the changing pattern of employment for employees. Examples are just limited statements. These statements will mention such issues as home/teleworking, flexible hours, job satisfaction, ease of tasks, re-training, increased unemployment and work monitoring.</p> <p>Quality of Written Communication The candidate has used a form and style of writing which has many deficiencies. Ideas are not often clearly expressed. Sentences and paragraphs are often not well-connected or at times bullet points may have been used. 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.</p>	(1-3 marks)
		<p>Level 2 Lower mid mark range</p> <p>Subject Criterion Context There is evidence of some understanding or use shown by giving examples of the changing pattern of employment for employees. Examples are supported by limited descriptions. These examples will mention with limited descriptions such issues such as home/teleworking, flexible hours, job satisfaction, ease of tasks, re-training, increased unemployment and work monitoring.</p> <p>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.</p>	(4-6 marks)

		<p>Level 3 Higher mid mark range</p> <p>Subject Criterion Context There is evidence of a more developed understanding shown through the use of suitable examples that describe the changing pattern of employment for employees. Examples are supported by suitable descriptions. These examples will consider and describe such issues such as home/teleworking, flexible hours, job satisfaction, ease of tasks, re-training, increased unemployment and work monitoring.</p> <p>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.</p>	(7-9 marks)
		<p>Level 4 High mark range</p> <p>Subject Criterion Context There is evidence of a clear understanding shown through the use of relevant examples that clearly discuss the changing pattern of employment for employees. Examples are well supported by reasoned arguments. These examples will consider and discuss a range of issues such as home/teleworking, flexible hours, job satisfaction, ease of tasks, re-training, increased unemployment and work monitoring.</p> <p>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.</p>	(10-12 marks)