



**2012 Computing Studies**

**Standard Grade – General**

**Finalised Marking Instructions**

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## Part One: General Marking Principles for Computing Studies Standard Grade – General

*This information is provided to help you understand the general principles you must apply when marking candidate responses to questions in this Paper. These principles must be read in conjunction with the specific Marking Instructions for each question.*

- (a) Marks for each candidate response must always be assigned in line with these general marking principles and the specific Marking Instructions for the relevant question.
- (b) Marking should always be positive i.e., marks should be awarded for what is correct and not deducted for errors or omissions.
- (c) If a question is worth two or more marks, it would be helpful if you could indicate with a tick (✓) where you have allocated the marks. For example, if a candidate is awarded two marks out of three, in question 2(b), then indicate where you have awarded the two marks.
- (d) If a specific candidate response does not seem to be covered by either the principles or detailed Marking Instructions, and you are uncertain how to assess it, you must seek guidance from your Team Leader/Principal Assessor. You can also email or phone the e-marker Helpline.
- (e) Award **one** mark for each 'bullet' point where stated in the marking instructions.
- (f) On the MFI system, if a candidate has not answered or attempted a question a NR must be placed in the mark column instead of a zero '0'.
- (g) When converting from Gigabytes/Megabytes/Kilobytes to bytes, '1024' is the only unit acceptable, e.g. 1024 bytes = 1 Kilobyte, 1024 Kilobytes = 1 Megabyte, 1024 Megabytes = 1 Gigabyte.
- (h) No piece of work should be ignored without careful checking. Candidates may have scored out an answer then written the correct answer at the back of the question paper. Make sure that every page is checked.
- (i) If the first answer has been scored out, but still readable, *and not replaced by another answer*, the question should be marked in the normal way. If you feel that a candidate has been disadvantaged by this action, contact your Team Leader.
- (j) On the MFI system, if you come across a paper which is blank, scroll down to the end of the paper in-case the answers have been written on a separate piece of paper which will be scanned and added to the end of the on-screen paper.
- (k) Any references to trade names or commercial products, e.g. "Microsoft", "MSN", etc. should be ignored, and then the rest of the answer should be marked. For example, if you received an answer "Microsoft Spreadsheet" then "Microsoft" would be ignored and "Spreadsheet" accepted, but "Microsoft Excel" would be ignored.

**Part Two: Marking Instructions for each Question**

Question			Expected Answer/s	Max Mark	Additional Guidance
1	a		Any <b>two</b> from: <ul style="list-style-type: none"> <li>• More functions available</li> <li>• Only need the program in use</li> <li>• More features</li> <li>• Separate packages using less memory</li> </ul>	2  <b>(KU)</b>	No other possible answers
1	b		Any <b>three</b> from: <ul style="list-style-type: none"> <li>• Compare the words / scan / check (1)</li> <li>• to a built-in dictionary (1)</li> <li>• Gives the option of replacing the word (1)</li> <li>• Gives the option of adding the word to the dictionary (1)</li> <li>• Wrongly spelled word highlighted / line under (1)</li> <li>• Spelling options given (1)</li> </ul>	3  <b>(KU)</b>	No other possible answers
1	c	i	Online tutorial	1  <b>(KU)</b>	No other possible answers
1	c	ii	He has not used it before so needs to be taught Step by step guide How to use the packages Explanation of why online help not used	1  <b>(PS)</b>	If online help given in part (i) and explanation is correct for online tutorial give 1 mark
1	d	i	Linear (linkage)	1  <b>(PS)</b>	No other possible answers
1	d	ii	Hyperlink	1  <b>(PS)</b>	Accept hotspot
1	d	iii	Microphone/headset with microphone	1  <b>(KU)</b>	Accept mic
1	e		In the printer properties screen (1) Type in page range 3-4 (1) <b>or</b> Copy and paste slides 3 and 4 (1) Into a new document and print (1) <b>or</b> Print select (1) indicating 2 pages (1) <b>or</b> Delete slides 1 and 2 (1) then print remaining slides (1) <b>or</b> Print current page (1)for both slides (1)	2  <b>(PS)</b>	Do NOT accept "last two slides"

Question		Expected Answer/s	Max Mark	Additional Guidance
2	a	Text <b>or</b> alphanumeric	1 <b>(PS)</b>	Due to use of brackets, <b>do not</b> accept number
2	b	<b>Three</b> marks from: Complex search / query / filter (1) Search (field ) Newspaper = "Daily Best" (1) (search) (field) Street = "Main Street" (1)  Filter by form (1) and then one mark per search criteria (2)	3  <b>(PS)</b>	Quote marks not essential. If uses words 'complex search' do not need AND
2	c	He must use 2 separate fields (1) First name and surname (1)  Rename and create separate field(1) Implication of separate fields(1)	2  <b>(PS)</b>	Writing names as Jones Anne is not a structural change
2	d	He must update / alter / correct / change / edit the record (1) by specific with new details (1) <b>or</b> Shows actual changes of <b>both</b> fields (2)	2  <b>(PS)</b>	No other possible answers
3	a	Any <b>two</b> from: <ul style="list-style-type: none"> <li>• less errors</li> <li>• fast input</li> <li>• shorter queues</li> <li>• simple to change prices</li> <li>• accurate sales information / stock control</li> <li>• itemised receipt (can be used for returns)</li> <li>• unique code</li> <li>• quick price enquiry</li> </ul>	2  <b>(KU)</b>	Do NOT accept two similar reasons and <b>must be for shop not customer.</b>
3	b	To check the bar code was read correctly <b>or</b> verification	1  <b>(KU)</b>	Do NOT accept how it is calculated <b>or</b> valid / validation
3	c	Data – raw figures, meaningless figures (1) Information – data with a context or meaning (1)	2  <b>(KU)</b>	No other possible answers
3	d	Any <b>two</b> from: <ul style="list-style-type: none"> <li>• programmer</li> <li>• systems analyst</li> <li>• engineer</li> <li>• network manager</li> <li>• description of job(s)</li> </ul>	2  <b>(KU)</b>	Accept different kinds of engineer as two jobs, e.g. software or hardware

Question			Expected Answer/s	Max Mark	Additional Guidance
3	e		Any <b>two</b> from: <ul style="list-style-type: none"> <li>• Does not need to carry cash</li> <li>• Can purchase expensive items</li> <li>• Don't need to go to bank / ATM for money</li> <li>• Online shop 24/7</li> <li>• No need to leave home with justification</li> <li>• Have enough cash/will not run out of money</li> </ul>	2  <b>(PS)</b>	Advantage to Mark not shops
3	f		<b>Point</b> (1) of <b>sale</b> (1)	2  <b>(KU)</b>	No other possible answers
4	a	i	Any <b>two</b> from: Light shone (1) Detected by sensor (1) Follow the line (1)	2  <b>(KU)</b>	No other possible answers
4	a	ii	The line can be dirty / covered / damaged / fading	1  <b>(KU)</b>	No other possible answers
4	a	iii	Magnetic guide <b>or</b> magnetic wires	1  <b>(KU)</b>	Not track or GPS, built in map
4	b		Any <b>two</b> from: <ul style="list-style-type: none"> <li>• lights</li> <li>• siren</li> <li>• bump sensors</li> <li>• motion / movement sensors</li> </ul>	2  <b>(PS)</b>	Device must be <b>on</b> robot Not painting robot bright colour No human safety equipment No warning signs
4	c		Real time	1  <b>(KU)</b>	No other possible answers
4	d		Any <b>two</b> from: <ul style="list-style-type: none"> <li>• more accurate than humans</li> <li>• more efficient than humans</li> <li>• can carry more than humans</li> <li>• can work in dangerous areas</li> <li>• no pay / wages</li> <li>• no breaks / works 24/7</li> <li>• increase productivity</li> </ul>	2  <b>(KU)</b>	Not power saving / lights / heating
4	e	i	Robots use <b>sensors</b> to detect the items they will pick-up	1  <b>(KU)</b>	No other possible answers

Question			Expected Answer/s	Max Mark	Additional Guidance
4	e	ii	Robots use <b>interfaces</b> to connect to a computer	1 <b>(KU)</b>	No other possible answers
4	e	iii	Designers can use <b>simulations</b> to check the robots will work correctly	1 <b>(KU)</b>	Accept simulator
4	f	i	Wide Area Network <b>or</b> WAN	1 <b>(PS)</b>	No other possible answers
4	f	ii	Offices have a large distance between them.	1 <b>(PS)</b>	Accepts this reason even if they give LAN for part (i) Must be a geographical reason
5	a		Cells D4, F4, F6, F7	3 <b>(PS)</b>	No other possible answers
5	b		Highlight from B3 to D5 (1) Highlight columns B,C,D Change format to currency (1)	2 <b>(PS)</b>	Range must be given
5	c		MAX (F3:F5) OR MAXIMUM (F3:F5) 1 mark for MAX, 1 mark for correct range	2 <b>(PS)</b>	No other possible answers
5	d		Highlight from cell F3 to F5 (1) Fill down (1) <b>or</b> Click on dot at bottom right of cell F3 (1) Hold and drag down to F5 (1) <b>or</b> Copy and paste (1) with cells in range (1) <b>or</b> Replicate F3 (1) to cells F4 and F5 (1) <b>or</b> Copy and paste formula into cells below (1)	2 <b>(PS)</b>	No other possible answers
5	e		Easier to understand / read Shows trends Presents information better	1 <b>(KU)</b>	Attractive presentation of numbers
5	f	i	Email is faster / quicker to send No postage costs No paper / ink costs	1 <b>(KU)</b>	Not free

Question			Expected Answer/s	Max Mark	Additional Guidance
5	f	ii	The bank may not have the same program as Mary used. Need email account Hacking/intercepted Accidentally sent to junk/spam mail Sent to wrong person	1  <b>(KU)</b>	Not viruses
5	g		Cell lock / protection / password protect the cells	1  <b>(PS)</b>	No other possible answers
5	h	i	Any <b>two</b> from: <ul style="list-style-type: none"> <li>• Offers advice;</li> <li>• Gives diagnosis;</li> <li>• She can learn about the health of her sheep;</li> <li>• It will train Mary for future problems;</li> <li>• Like having a vet available.</li> </ul>	2  <b>(PS)</b>	Not a description of an expert system e.g. has a lot of knowledge
5	h	ii	Medicine/Law/Car fault diagnosis Any common sense answer	1  <b>(KU)</b>	One word answers accepted
6	a		<b>Graphical</b> (1) user <b>interface</b> (1)	2  <b>(KU)</b>	<b>Not graphic</b>
6	b		Any <b>two</b> from: <ul style="list-style-type: none"> <li>• (Uses) English-like (words)</li> <li>• Needs to be translated</li> <li>• Problem orientated</li> <li>• Straightforward to de-bug/easy to spot errors</li> <li>• Portable</li> </ul>	2  <b>(KU)</b>	Do NOT accept uses English on its own or easy to read Not human like
6	c		Any <b>two</b> from: <ul style="list-style-type: none"> <li>• (Connect her camera with a) USB cable</li> <li>• Place flash card / SD card / memory card / SIM card into computer or card reader</li> <li>• (Use) Bluetooth (connection)</li> </ul>	2  <b>(PS)</b>	Must mention cable if USB used Not card on own Not emailed using mobile phone
6	d		By using folders Hierarchical	1  <b>(PS)</b>	Not album
6	e		Date file: created by/used by a program (1) Program file: instructions for the computer <b>or</b> instructions for application packages <b>or</b> instructions for software (1).	2  <b>(KU)</b>	Not a file of data

Question		Expected Answer/s	Max Mark	Additional Guidance																																																																
6	f	<table border="1"> <tr><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>0</td></tr> <tr><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td></tr> <tr><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td></tr> <tr><td>0</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>0</td></tr> </table> <p>A zero is blank, A one is black (2)</p>	0	0	0	1	1	0	0	0	0	0	1	1	1	1	0	0	0	1	0	0	0	0	1	0	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	0	1	0	0	0	0	1	0	0	0	1	1	1	1	0	0	0	0	0	1	1	0	0	0	2  (PS)	<p>If they are reversed the colours only give (1)</p> <p>If middle square is missing and all else correct (1)</p>
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[END OF MARKING INSTRUCTIONS]