



**2010 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 ie, marks should be awarded for what is correct and not deducted for errors or omissions.
- (c) 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 do this by posting a question on the Marking Team forum or by e-mailing/phoning the e-marker Helpline. Alternatively, you can refer the issue directly to your Team Leader by checking the 'PA Referral' box on the marking screen.
- (d) Award **one** mark for each 'bullet' point where stated in the marking instructions.
- (e) On the MFI system, if a candidate has not answered or attempted a question a dash '-' must be placed in the mark column instead of a zero '0'.
- (f) 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.
- (g) 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.
- (h) 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, make it a 'PA Referral'.
- (i) 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.
- (j) 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	i	Laptop or palmtop	1	Other acceptable answers include: Netbook, Notebook, PDA.
1	a	ii	Any <b>one</b> from: Portable, does not need electricity, runs on batteries, lightweight, easy to carry.	1	No other possible answers.
1	b		Any <b>one</b> from: Using wireless connections or technology, WiFi, wireless, wireless NIC, wireless transmission.	1	Other acceptable answers include: He is in range. Laptop has wireless connection.
1	c		Grammar check If answer given is Spelling and Grammar Check (ignore Spelling and give mark for Grammar Check).	1	No other possible answers.
1	d	i	Search and Replace (1) or Find and Replace (1).	1	Other acceptable answers include: Find and Change or Search and Change.
1	d	ii	In search box put 'Mc' or 'McDonald' (1) in replace box put 'Mac' or 'MacDonald' (1).	2	Other acceptable answers include: Find/Search = McDonald (Mc) (1) Replace/Change = MacDonald (Mac) (1). Process explained without referring to surnames e.g. search for one word and replace with another word (1).
1	e		<ul style="list-style-type: none"> <li>From print dialogue (1) select last three pages to print (1)</li> <li>cut and paste last three pages (1) into a new document (1)</li> <li>highlight the pages (1) and print selection (1)</li> <li>print pages 10, 11, 12 or (print pages 10-12) (2).</li> </ul>	2	No other possible answers.
1	f		Any <b>one</b> from: Common tools, similar menus, familiar layout, similar icons.	1	Other acceptable answers include: Easy to learn different packages. Easy for user to move between packages.
2	a		$= B3 + (C3 * D3)$ <ul style="list-style-type: none"> <li>B3 1 mark</li> <li><math>C3 * D3</math> 1 mark</li> </ul>	2	Ignore all but cell references.

Question			Expected Answer/s	Max Mark	Additional Guidance
2	b		= SUM(E3 : E6) • SUM            1 mark • E3 : E6        1 mark	2	No other possible answers.
2	c		Highlight cells/Highlight column B (1) (B3 to B6 optional) Choose currency (1).	2	<b>Do not accept add pound sign and 2 decimal places.</b>
2	d		• Insert new row (1) between rows 3 and 4 (1) • Insert new row (1) under Black, D (1) • Insert new row (1) between Black,D and Hussein,D (1) • Insert new row (1) above Hussein, D (1) • Click on row 4 (1) insert row (1)	2	Other acceptable answers include: Insert in row 7 (1), sort on Name column (1), add new row (1).
2	e		Any <b>one</b> from: • To get step-by-step instructions/lessons • To familiarise themselves with a new program • Series of lessons to learn the whole package • Teaches how to use package	1	Other acceptable answers include: Get to know the whole program, use this before using the package.
2	f		Create a chart or graph.	1	Other acceptable answers include: Charting, chart wizard, named type of chart/graph e.g. pie/bar chart, bar graph.
2	g		1 rotate or turn (1) 2 scale or resize (1)	2	Other acceptable answers include: make larger/bigger, enlarge.
3	a		Any <b>two</b> from. • No wastage of materials • Work 24/7 • No tea break or no canteen breaks • No holidays • Doesn't get sick • Quick at making product/works faster/productivity increases • More accurate at putting together • Consistency/Don't get tired or bored	2	Other acceptable answers include: • More adaptable • Can be reprogrammed to do different jobs  <b>Do NOT accept Dangerous environments or wages.</b>
3	b	i	Mobile	1	No other possible answers.

Question			Expected Answer/s	Max Mark	Additional Guidance												
3	b	ii	Wires buried in the factory floor (1) Magnetic <b>sensors</b> pick up the signal (1).	2	Other acceptable answers include: Magnets on floor (1), <b>sensors</b> follow magnetic field (1).												
3	c		Any <b>one</b> from: <ul style="list-style-type: none"><li>No wastage of material if a design mistake was made</li><li>Check final product fits together</li><li>Check if there are any problems/faults (before production)</li><li>To see what end product looks like</li><li>To check have correct/enough materials</li><li>To check if program works.</li></ul>	1	Other acceptable answers include: Saves money/time/resources, changes can be made easily.												
3	d		<ul style="list-style-type: none"><li>Sensors (1) and feedback (1)</li><li>Sensors (1) and choice of tool (1)</li><li>Good description (2).</li></ul>	2	Other acceptable answers include: Robot gets hold of chair slowly as there is a sensor (in robot gripper) so it doesn't grip too hard, end effector.												
3	e		Graphics tablet or Graphics pad	1	Other acceptable answers include: Pen or stylus used with good description. <b>Do not accept mouse or drawing tablet.</b>												
4	a		<div><table><tr><td>Country</td><td><b>Spain (1)</b></td></tr><tr><td>Type of holiday</td><td>Hotel</td></tr><tr><td>Location</td><td><b>Barcelona (1)</b></td></tr><tr><td>Number in party</td><td>3</td></tr><tr><td>Date</td><td>21/9/2010</td></tr><tr><td>Duration</td><td><b>5 days (1)</b></td></tr></table></div>	Country	<b>Spain (1)</b>	Type of holiday	Hotel	Location	<b>Barcelona (1)</b>	Number in party	3	Date	21/9/2010	Duration	<b>5 days (1)</b>	3	No other possible answers.  The word 'days' optional.
Country	<b>Spain (1)</b>																
Type of holiday	Hotel																
Location	<b>Barcelona (1)</b>																
Number in party	3																
Date	21/9/2010																
Duration	<b>5 days (1)</b>																
4	b	i	When Carol looks for a country that a family wants to visit, she will <b>search</b> the database.	1	No other possible answers.												
4	b	ii	A <b>numeric</b> field type is used to store the "Number in party".	1	No other possible answers.												
4	b	iii	Carol would <b>sort</b> the database to put the locations into alphabetical order.	1	No other possible answers.												

Question			Expected Answer/s	Max Mark	Additional Guidance
4	c	i	A piece of text saved/prewritten/ready-made (1) that can be inserted into documents as required/inserted into a letter/recalled/used many times (1).	2	No other possible answers.
4	c	ii	Any <b>one</b> from: <ul style="list-style-type: none"> <li>No need to type the text</li> <li>Already spell checked</li> <li>Error free</li> <li>Saves time</li> </ul>	1	No other possible answers.
4	d		Any <b>one</b> from: <ul style="list-style-type: none"> <li>A program that can give the advice (a human expert would give)</li> <li>(Expert) <b>knowledge</b> database on one topic</li> <li>Knowledge database on a particular topic</li> <li>Database made up by many <b>experts</b>.</li> </ul>	1	Other acceptable answers include: Gives answers to questions asked by the user.
5	a		Any <b>two</b> from. <ul style="list-style-type: none"> <li>Range (check)</li> <li>Length (check)</li> <li>Check digit</li> </ul>	2	No other possible answers.
5	b		Data: does not have a meaning (e.g. 29062010) (1)  Information: has a meaning or context (e.g. 29th May 2010) (1)	2	Other acceptable answers include: Data understood by computers. Information understood by humans. <b>Do not accept example on own e.g. 29062010.</b>
5	c	i	The <b>systems analyst</b> can recommend new software or hardware.	1	No other possible answers.
5	c	ii	The <b>engineer</b> maintains the computer system.	1	No other possible answers.
5	c	iii	The <b>network manager</b> maintains user access on the computer network.	1	No other possible answers.
5	d		Funds or Fund (1) Transfer (1).	2	No other possible answers. <b>Remember to not penalise spelling.</b>
5	e	i	Hacking.	1	No other possible answers.

Question			Expected Answer/s	Max Mark	Additional Guidance
5	e	ii	Any <b>two</b> from: <ul style="list-style-type: none"> <li>• Encryption</li> <li>• Physical security e.g. locked room</li> <li>• Password</li> <li>• Swipe cards</li> <li>• Biometric security</li> <li>• Password on data/password protection</li> <li>• Firewall</li> <li>• Setting privileges.</li> </ul>	2	No other possible answers.
6	a	i	Any <b>two</b> from: <ul style="list-style-type: none"> <li>• Easy to debug</li> <li>• Easy to edit</li> <li>• Can be read by humans</li> <li>• Uses English-<b>like</b> words/uses words <b>similar</b> to English</li> <li>• Problem oriented</li> <li>• Portable.</li> </ul>	2	<b>Do not accept: ‘uses English’ or ‘uses English words’ on its own.</b>
6	a	ii	Any <b>one</b> from: <ul style="list-style-type: none"> <li>• Binary (code)</li> <li>• 1’s and 0’s</li> <li>• Binary numbers</li> <li>• Binary digits</li> <li>• The language computers understand.</li> </ul>	1	No other possible answers.
6	b	i	Real time.	1	No other possible answers.
6	b	ii	Any <b>one</b> from: <ul style="list-style-type: none"> <li>• Instant response/responds immediately</li> <li>• Fire system must respond there and then.</li> </ul>	1	Other acceptable answers include: If ‘interactive’ chosen in part (i), and this is a description of an interactive system give 1 mark.
6	c		Digital (1) Versatile (1).	2	No other possible answers. <b>Remember to not penalise spelling.</b>
6	d	i	1024.	1	No other possible answers.
6	d	ii	8.	1	No other possible answers.
6	e		BIrary digIT (1 mark for binary, 1 mark for digit).	2	No other possible answers.

Question			Expected Answer/s	Max Mark	Additional Guidance
7	a		Pixel Size <input type="checkbox"/> ✓ <input type="checkbox"/>	1	No other possible answers. If 2 or 3 boxes are ticked 0 marks.
7	b	i	Graphical (1) User (1).	2	No other possible answers. Remember to not penalise spelling. <b>Do not accept 'graphic'.</b>
7	b	ii	Crystal.	1	No other possible answers. Remember to not penalise spelling.
7	c		Any <b>two</b> from: <ul style="list-style-type: none"> <li>• Touch screen</li> <li>• Stylus or Pen</li> <li>• On-screen keyboard/keypad.</li> </ul>	2	Other acceptable answers include: Use of finger.  <b>Do not accept microphone or digital camera.</b> <b>Do not accept keyboard on its own.</b>
7	d	i	The use of text and graphics OR more than one type of data.	1	Other acceptable answers include: animation, video, sound, audio.
7	d	ii	Any <b>one</b> from: <ul style="list-style-type: none"> <li>• Scanner or Scan or Scanning</li> <li>• Device + Interface</li> </ul> e.g. SD/Memory card into card reader e.g. Digital camera connected or plugged into laptop (via USB cable).	1	<b>Do not accept eg digital camera or USB cable on their own.</b>

[END OF MARKING INSTRUCTIONS]