

2013 Computing Studies

Standard Grade Credit

Finalised Marking Instructions

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

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 <u>always</u> 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 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 'NR' 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.

Qu	Question		Expected Answer/s	Max Mark	Additional Guidance
1	а	i	12 x 10 bits (1) / 8 (1) = 15 bytes	2 (PS)	15 on own – 2 marks
1	а	ii	0 0 1 0 0 0 0 0 1 0 0 0 0 0 1 0 0 0 1 0 0 0 0 0 1 1 1 1 1 0 0 0 0 0 1 1 1 1 1 1 0 0 0 1 1 0 1 1 1 1 0 0 0 1 1 0 1 1 1 1 0 0 0 1 1 0 1 1 1 0 1 1 0 1 mark for correct box entries 1 1 0 1 1 0 1 mark for correct use of 1/0 i.e. 1 1 0 1 1 1 1 i.e. 1 1 0 = white 1 1 1 1 1	2 (PS)	If boxes inverted max 1 mark If only entered correctly placed 1's - mark
1	b		ASCII / 1's and 0's / binary	(<u>1</u> (KU)	
1	C		 Any two from: Highlight/select (1) graphic choose a text wrap (1) option type of text wrapping (tight, square) 	2 (PS)	
2	а	i	IF / conditional	1 (PS)	
2	а	ii	(From) F4 \longrightarrow F6	1 (PS)	F4 – F6 / F4:F6 / F4 to F6, F4, F5, F6 all acceptable Not $4F \rightarrow 6F$
2	а	;;;	Cell A3 needs to be fixed (1.95) therefore absolute replication Cell E4 needs to change according to the row it is in(2.01->1.99) therefore relative replication	2 (KU)	Reference to contents without explicit mention of relative/absolute 1 mark only e.g. "the jumps change but the target doesn't"
2	b	i	= MAX (B4 : D4) or MAXIMUM 1 for function, 1 for range	2 (PS)	Do not accept B4 – D4
2	b	ii	= MIN (B9 : D9) or MINIMUM 1 for function, 1 for range	2 (PS)	Do not accept B9 – D9
2	С	i	Contents of the cell cannot be changed/altered/locked/password	1 (KU)	
2	с	ii	A3 and A8	1 (PS)	Needs both cell references

Part Two: Marking Instructions for each Question

Question		on	Expected Answer/s	Max Mark	Additional Guidance
2	d	i	Attachment	1 (PS)	Not attach
2	d	ii	 Any two from: Does not have the required software Not saved in standard file format/uses different file format Not compatible with existing software Encrypted Older version of software 	2 (PS)	
3	а		 Any two from: (micro)chip/processor Limited functionality Designed to control specific item 	2 (KU)	Not part of larger system as in question stem
3	b	i	Real-time	1 (PS)	
3	b	ii	 Any two from: Speed of access Speed of processing Volume of data Multi-access (or description of) Storage capacity 	2 (KU)	
3	с		<i>Data</i> – meaningless / used by computer <i>Information</i> – meaningful / data + context / used by humans	2 (KU)	
3	d	i	Idea of fixed part (1) and variable part (1) Description of placeholders and database merging – (2)	2 (KU)	
3	d	ii	Database OR Spreadsheet	1 (KU)	
3	d	iii	Mailmerge	1 (KU)	Not merge on its own

Qu	estic	on Expected Answer/s	Max Mark	Additional Guidance
3	e	 Any two from: Provide advice from <u>range</u> of experts Justify/back up the advice (given by the operator) Give operator more confidence in handling situations as Guides them through it Gives them a script to help deal with customer queries Information always available Consistent advice 	2 (PS)	
4	a	 Any two from: Gathering information about the current system (Gathering information) - Observing (current system) (Gathering information) - Interviewing (employees/employer) (Gathering information) - Questionnaires Specifying/design/recommend hardware and software for new system Reporting on costs/development time/installation time/layout of the new system Evaluating and updating system (once installed) 	2 (PS)	If the candidate chooses option 1, they cannot get further marks for options 2-4, they must choose from 5-7.
4	b	 Any two from: No need for as many facilities, e.g. toilets/restaurant High shelves Can cut down on amenities heating lighting costs Guidance system – look like has white lines or magnetic wires on floor 	2 (KU)	
4	C	 Any two from: Large hard disk Powerful processor(s) Lots of RAM Many different types of sensors Cameras (vision system) Voice recognition 	2 (KU)	

Question		on	Expected Answer/s	Max Mark	Additional Guidance
4	d		 Any one from: Fast start-up Cannot be altered/changed Cannot be affected by viruses 	1 (KU)	Not cannot be lost when switched off
4	е	i	Control (language)	1 (KU)	
4	e	ii	 Any one from: Designed specifically for robotics/task, Contains suitable commands e.g. forward, right 90 etc. 	1 (PS)	
5	а	i	Optical Character Recognition	1 (KU)	
5	а	ii	Editable text / saves time typing / no need to retype	1 (PS)	
5	b	i	(To enable the user to download/view/ access webpages	1 (KU)	Not surf the net
5	b	ii	A search engine helps you search for information OR produces a list of possible websites (1), using keywords/ find information on a particular topic (1) OR search for websites or WWW (1)	1 (KU)	
5	с		(printer/device) driver	1 (KU)	
5	d	i	$D \rightarrow A$ converter	1 (PS)	
5	d	ii	Background processing/job/task	1 (PS)	
5	е	i	unique address	1 (KU)	
5	е	ii	Word (size)	1 (KU)	Accept plural version

Qu	Question		Expected Answer/s	Max Mark	Additional Guidance
5	e	iii	 Any one from: Error reporting File management Controlling input-output User interface 	1 (KU)	Accept description of
5	f	i	"is a fixed link" ← Static "A live link, where data" Dynamic	1 (KU)	
5	f	ii	Static/ Dynamic Mark awarded for describing an apt situation related to choice of linkage above	1 (PS)	
6	а		(=) Basic Contract Fee + Extra minutes + Extra Texts 1 mark for operators, 1 mark for correct fields	2 (PS)	Award 1 mark if correct fields suggested, e.g. Basic Contract Fee : Extra Text
6	b	i	Search on two or more fields	1 (KU)	
6	b	ii	 Search E-mail Address field for 'includes' gotest.com (notion of wildcard e.g. * or "") (1) (AND) Extra Minutes field for >0 (or = 5 or < 10 or 5 → 10 or >= 1) (1) Display E-mail Address field and Total Cost field only (1) 	3 (PS)	Give third mark for adjusting output format
7	а	i	Computer (workstation/desktop/laptop, etc)	1 (KU)	Do not accept description of multi-access
7	а	ii	NIC or WNIC or (wireless) network card	1 (KU)	
7	b	i	Computer Misuse Act	1 (KU)	
7	b	ii	(knowingly creating / distributing) viruses	1 (KU)	Take care not to double penalise if wrong Act stated in part (i)

Question		on	Expected Answer/s	Max Mark	Additional Guidance
7	с	i	Length check	1 (PS)	
7	с	ii	Double entry	1 (PS)	Description of double entry acceptable
7	с	iii	Validation – data is sensible/acceptable/ carried out by a computer Verification – data has been entered correctly/carried out by humans	2 (KU)	
7	d		shareware commercial freeware	1 (PS)	
7	е		Any one from: • Withdrawals • Deposits • Other suitable	1 (PS)	Cumulative or summative information implying groups or list or totals
7	f	i	Any one from: • No travel costs • Time saved travelling • Hotel costs	1 (PS)	Not no need to travel
7	f	ii	Webcam	1 (KU)	

[END OF MARKING INSTRUCTIONS]