

# **Mark Scheme for June 2011**

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This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by Examiners. It does not indicate the details of the discussions which took place at an Examiners' meeting before marking commenced.

All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the Report on the Examination.

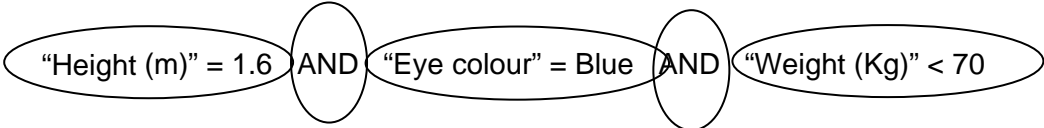
OCR will not enter into any discussion or correspondence in connection with this mark scheme.

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Question		Expected Answer	Mark	Rationale
1	(a)	Four from: <ul style="list-style-type: none"> <li>• He will <b>sort</b> records in...</li> <li>• ...<b>ascending order</b></li> <li>• ...by first sorting the <b>gender</b></li> <li>• ...and then sorting according to <b>name</b></li> </ul>	[4]	Accept descending order.  Accept 'Choose A to Z'
	(b)	A suitable query would be:    Award marks for: <ul style="list-style-type: none"> <li>• each correct parameter</li> <li>• both ANDs in correct place</li> </ul>	[4]	Quotes are optional.  Units (m) and (kg) are optional.  Misplaced units are acceptable (eg Height =1.6m is acceptable).  The search parameters do not have to be in this order.  Allow 1.60 for 1.6
	(c)	ID no.  One from:(A key field is) <ul style="list-style-type: none"> <li>• unique</li> <li>• all are different</li> </ul>	[1]  [1]	
	(d) (i)	Two from: <ul style="list-style-type: none"> <li>• copied/transcribed</li> <li>• without errors/matches original source document</li> </ul>	[2]	
	(ii)	One from: <ul style="list-style-type: none"> <li>• visual check</li> <li>• read data in database</li> <li>• compare data in database with original document</li> <li>• double entry.</li> </ul>	[1]	Not proof read/spellcheck

Question		Expected Answer	Mark	Rationale
	(iii)	One from: <ul style="list-style-type: none"> <li>• ensure that the data is reasonable/sensible</li> <li>• ensure that the data complies with set rules</li> </ul>	[1]	
	(iv)	<b>One</b> appropriate check from: <ul style="list-style-type: none"> <li>• Range check               <ul style="list-style-type: none"> <li>○ ensure date is within predetermined limits</li> </ul> </li> <li>• Invalid character check/ type check               <ul style="list-style-type: none"> <li>○ ensure that data is only numeric</li> </ul> </li> </ul> 1 mark for type of check, 1 mark for the appropriate description/explanation	[2]	Do not accept presence check.
2	(a)	One from: Suitable examples include: <ul style="list-style-type: none"> <li>• bank branch</li> <li>• car repair facility</li> <li>• finance office</li> </ul> One from: <ul style="list-style-type: none"> <li>• prints multi-part stationery</li> <li>• very fast printing</li> <li>• uses continuous paper</li> <li>• copes with dirty environments</li> <li>• cheap running costs</li> </ul>	[2]	<b>Accept any valid example where a dot matrix printer would be used eg where multi-part stationery is used eg a closed payslip.</b>
	(b)	Two from: <ul style="list-style-type: none"> <li>• can be cheap to buy</li> <li>• produce good photo quality prints</li> <li>• use photo quality paper</li> <li>• suitable for small quantity printing</li> </ul>	[2]	Not just 'To print photos'.
	(c)	One from: <ul style="list-style-type: none"> <li>• fast printing</li> <li>• high quality</li> <li>• cheap to run for large quantities</li> </ul>	[1]	

Question	Expected Answer	Mark	Rationale
3	Four from: <ul style="list-style-type: none"> <li>• use of/import into spreadsheet/database               <ul style="list-style-type: none"> <li>○ create graph</li> <li>○ add title/legends/axes names</li> <li>○ perform calculations eg average/sum etc</li> </ul> </li> <li>• sort the data               <ul style="list-style-type: none"> <li>○ into order of city</li> <li>○ into order of population</li> </ul> </li> </ul>	[4]	Do not allow references to display features eg fonts, text size, animations.
4	Advantages: Two from: <ul style="list-style-type: none"> <li>• less dangerous than the real situation</li> <li>• can pre-set conditions</li> <li>• can re-run situations</li> <li>• can run demonstrations</li> <li>• less expensive than a real plane</li> <li>• not limited to specific location/time</li> </ul> Disadvantages: Two from: <ul style="list-style-type: none"> <li>• not the real thing/un-realistic experience</li> <li>• expensive equipment/software required</li> <li>• does not cater for all eventualities</li> </ul>	[4]	

Question	Expected Answer	Mark	Rationale
5	<p><b>Six from:</b></p> <p><b>Benefits of using the internet as a source of information include:</b></p> <ul style="list-style-type: none"> <li>• vast information available on a topic</li> <li>• information is available from around the world/not restricted to local resources</li> <li>• can cross-check (a large number of) sources of information for accuracy</li> <li>• information is more likely to be up-to-date than alternatives eg books, CD-ROMs, newspapers</li> <li>• can easily/quickly/accurately extract materials/information/text/images for use in own research</li> <li>• can contact authors of information easily/quickly</li> <li>• using trusted sites provides accurate information</li> <li>• can use a search engine to find information quickly</li> <li>• can access multimedia resources</li> </ul> <p><b>Drawbacks of using the internet as a source of information include:</b></p> <ul style="list-style-type: none"> <li>• vast information makes finding useful information slow/difficult</li> <li>• search engines favour/show advertisers' sites in preference to others so information is not presented in order of importance</li> <li>• web search results can be influenced by code/HTML/header tags to produce false/misleading results</li> <li>• information may not be exactly what is required</li> <li>• large quantity of information is difficult to sift through</li> <li>• information may be inaccurate/difficult to check the accuracy of the information</li> <li>• information may be biased</li> <li>• information may be unsuitable/inappropriate/offensive/racist/pornographic/drug-related etc</li> <li>• information may be politically sensitive/subversive</li> <li>• unable to check accuracy against written/hard copy alternatives/reference materials/information may be false</li> <li>• may be unable to verify the source/author of the materials</li> <li>• copyright of the materials may be unclear/unsure who has the copyright of the materials/plagiarism</li> <li>• some original/archive material cannot be viewed first hand</li> <li>• can be distracted to do unrelated tasks</li> <li>• information can be extracted without being read/learned</li> </ul> <p><b>Maximum 4 marks for all benefits or all drawbacks.</b></p>	<b>[6]</b>	

Question	Expected Answer	Mark	Rationale
6	Five from: <i>(email)</i> <ul style="list-style-type: none"> <li>• messages can be sent to multiple recipients simultaneously</li> <li>• attachments of files</li> <li>• no need for recipient to be present at receiving point/online</li> <li>• files are already in electronic form and can be edited/formatted/returned/saved</li> <li>• can be received by mobile devices/anywhere with internet connection</li> <li>• less use of paper/printing materials</li> </ul> <i>(fax)</i> <ul style="list-style-type: none"> <li>• recipient must have a fax machine</li> <li>• recipients fax machine must be on/working</li> <li>• only one copy received</li> <li>• can be insecure at receiving end/anyone can read a fax as it is received</li> </ul>	<b>[5]</b>	
7	Six from: <i>Example benefits:</i> <ul style="list-style-type: none"> <li>• flexible working hours/conditions/can work at any time</li> <li>• save cost of travel</li> <li>• save time in travelling to work</li> <li>• can work for more than one employer at the same time</li> <li>• not overseen by employers</li> <li>• house bound persons can work from home</li> </ul> <i>Example drawbacks:</i> <ul style="list-style-type: none"> <li>• less/no personal contact with fellow employees</li> <li>• cannot impress/converse with supervisor</li> <li>• distractions from eg family/friends/pets/visitors</li> <li>• need to be able to manage own time/work-home life imbalance/be motivated</li> <li>• difficult to make space for work equipment/documents at home</li> </ul> <p>Max 4 marks if all benefits or all drawbacks.</p>	<b>[6]</b>	Credit any valid benefit or drawback of working at home by the <b>employee</b> .

Question	Expected Answer	Mark	Rationale
8	<p><b>To be marked as a level of response:</b></p> <p><b>Level 3 (7-8 marks)</b></p> <p>Candidates will discuss both the advantages and disadvantages of connecting home computers in a network using relevant and appropriate examples. The discussion used will be balanced. The information will be relevant, clear, organised and presented in a structured and coherent format. Specialist terms will be used correctly and appropriately.</p> <p><b>Level 2 (4-6 marks)</b></p> <p>Candidates will discuss both the advantages and disadvantages of connecting home computers in a network. Examples used will be for the most part relevant. The discussion used may lack balance. For the most part the information will be relevant and presented in a structured and coherent format. Specialist terms will be used appropriately and for the most part correctly.</p> <p><b>Level 1 (0-3 marks)</b></p> <p>Candidates may only address some aspects of the question, and give basic descriptions of advantage(s) and/or disadvantage(s) of connecting home computers in a network. Answers may be in the form of a list. There will be little or no use of specialist terms.</p> <p><b>Example advantages:</b></p> <ul style="list-style-type: none"> <li>• internet access <ul style="list-style-type: none"> <li>○ can share one internet connection</li> <li>○ each family member can use internet at same time as the others</li> </ul> </li> <li>• files <ul style="list-style-type: none"> <li>○ can share files</li> <li>○ can use central storage</li> </ul> </li> </ul>		



		<ul style="list-style-type: none"> <li>○ can use central backups</li> <li>• music/video <ul style="list-style-type: none"> <li>○ use of media server</li> <li>○ can view/use media files on any/all computers/TVs</li> </ul> </li> <li>• parents can supervise/monitor the access by the children <ul style="list-style-type: none"> <li>○ use of filtering software</li> <li>○ use of logging software</li> </ul> </li> <li>• central updates <ul style="list-style-type: none"> <li>○ of eg anti-virus software</li> <li>○ applications</li> </ul> </li> <li>• peripheral sharing <ul style="list-style-type: none"> <li>○ named shared peripheral</li> </ul> </li> </ul> <p><b><i>Example disadvantages</i></b></p> <ul style="list-style-type: none"> <li>• viruses <ul style="list-style-type: none"> <li>○ easily spread to all computers</li> </ul> </li> <li>• installation/on-going issues <ul style="list-style-type: none"> <li>○ initial cost of equipment</li> <li>○ setup can be difficult for inexperienced users</li> <li>○ maintenance/trouble shooting can be difficult for inexperienced users</li> <li>○ firewalls can be difficult to configure</li> </ul> </li> <li>• security <ul style="list-style-type: none"> <li>○ files can be accessed by any user</li> <li>○ wireless networks can be insecure</li> </ul> </li> <li>• health and safety issues <ul style="list-style-type: none"> <li>○ physical safety eg extra wiring</li> </ul> </li> </ul>	<b>[8]</b>	
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Question	Expected Answer	Mark	Rationale
9	<p><b>Six from:</b></p> <ul style="list-style-type: none"> <li>• Changing data/variables for 'what if'/predictions/see what happens</li> <li>• Conditional formatting highlighting results/cells</li> <li>• In built functions for complex calculations</li> <li>• Using goal seek to find optimum results</li> <li>• "what if" for predictions</li> <li>• Automatic re-calculation when data is changed for update/up-to-date results</li> <li>• Using absolute referencing to use one specific cell and never move to another relative location in the calculations</li> <li>• Using relative referencing to follow changes in the sheet layout/structure</li> <li>• Named cells to make formulas self explanatory/easier to read</li> <li>• Use of graphs to give visual representation of data</li> </ul> <p><b><i>Award the mark only for a correct feature AND its use.</i></b></p>	[6]	
<b>Higher Paper Total</b>		<b>[60]</b>	

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