
APPLIED INFORMATION & COMMUNICATION TECHNOLOGY

9713/12

Paper 1 Written A

May/June 2017

MARK SCHEME

Maximum Mark: 80

Published

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This document consists of **7** printed pages.

Question	Answer	Marks																				
1	<table border="1"> <tr> <td>A hard disk provides direct access.</td> <td>✓</td> </tr> <tr> <td>A CD ROM stores several Gigabytes of data.</td> <td></td> </tr> <tr> <td>A Blu-ray disk stores less data than a DVD.</td> <td></td> </tr> <tr> <td>A magnetic tape has quicker data access than a hard disk.</td> <td></td> </tr> <tr> <td>A magnetic tape is a suitable medium for storing backups of server data.</td> <td>✓</td> </tr> <tr> <td>A CD R/W cannot be overwritten.</td> <td></td> </tr> <tr> <td>Blu-ray disks are not used to store data.</td> <td></td> </tr> <tr> <td>A pen drive can store more data than a CD.</td> <td>✓</td> </tr> <tr> <td>Flash memory cards are used in mobile (cell) phones.</td> <td>✓</td> </tr> <tr> <td>Solid state drives are more prone to failure than magnetic media.</td> <td></td> </tr> </table>	A hard disk provides direct access.	✓	A CD ROM stores several Gigabytes of data.		A Blu-ray disk stores less data than a DVD.		A magnetic tape has quicker data access than a hard disk.		A magnetic tape is a suitable medium for storing backups of server data.	✓	A CD R/W cannot be overwritten.		Blu-ray disks are not used to store data.		A pen drive can store more data than a CD.	✓	Flash memory cards are used in mobile (cell) phones.	✓	Solid state drives are more prone to failure than magnetic media.		4
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3	<p>Four from:</p> <p>Spreadsheet/graphing software to store data to plot student progress charts</p> <p>Spreadsheet to store data and use conditional formatting to show student progress/targets</p> <p>Web browser to check the reports have loaded satisfactorily</p> <p>Word processing software to type up reports</p> <p>Email software to inform the Principal that the reports have been uploaded</p> <p>IM software to inform the Principal that the reports have been uploaded.</p>	4

Question	Answer	Marks
4	<p>Six from:</p> <p>Student answers are neater (using computers) so <u>easier for teacher to read</u> and mark</p> <p>Will take longer to carry out the test as students cannot type as fast as they can write</p> <p>Can include videos and sound to illustrate questions which will make the test more interesting for the students</p> <p>If the network crashes there will be a delay in the testing</p> <p>Students will find the test more interesting so less likely to skip school</p> <p>No need to worry about students forgetting writing equipment.</p> <p>1 mark available for a reasoned conclusion.</p>	6

Question	Answer	Marks
5(a)	<p>LEFT(E2,1)</p> <p>LEFT() E2,1</p> <p>1 mark 1 mark</p>	2
5(b)	<p>MID(E2,2,1)</p> <p>MID() E2,2 ,1</p> <p>1 mark 1 mark 1 mark</p>	3
5(c)	<p>RIGHT(E2,1)</p> <p>RIGHT() E2,1</p> <p>1 mark 1 mark</p>	2
5(d)	<p>CONCATENATE (I2, H2, G2)</p> <p>CONCATENATE() I2, H2 ,G2</p> <p>1 mark 1 mark 1 mark</p>	3

Question	Answer	Marks
6	<p>Five from:</p> <p>A right to object to processing that is likely to cause or is causing damage or distress</p> <p>A right to prevent processing for direct marketing</p> <p>A right to object to decisions being taken by automated means</p> <p>A right in certain circumstances to have inaccurate personal data rectified, blocked, erased or destroyed</p> <p>A right to claim compensation for damages caused by a breach of the legislation</p> <p>A right of access to a copy of the information comprised in their personal data</p> <p><i>An individual is entitled to be informed about –</i></p> <p>Whether a company is processing data about the individual</p> <p>The personal data which a company holds about them</p> <p>The purposes for which the data are being or are to be processed</p> <p>The companies/recipients or classes of companies/recipients to whom they are or may be disclosed</p> <p><i>To have communicated to them in an intelligible form –</i></p> <p>The personal data being held about the individual</p> <p>The source of the data</p> <p>If it is being used to evaluate matters relating to them such as, for example, performance at work, creditworthiness, reliability or conduct.</p>	5

Question	Answer	Marks
7(a)	<p>A Evaporating unit 1 mark</p> <p>B Compressor 1 mark</p> <p>C Condensing unit 1 mark</p>	3
7(b)	<p>Three from:</p> <p>If pressure of refrigerant is above preset value Microprocessor opens valve wider...</p> <p>...to increase the flow of refrigerant</p> <p>If pressure of refrigerant is below preset value Microprocessor makes valve opening narrower...</p> <p>...to reduce the flow of refrigerant.</p>	3

Question	Answer	Marks
8(a)	<p>Six from:</p> <p>Journalist types up/edits their story using word-processing software/DTP Journalist types up/edits their story using laptop/tablet computer Takes photographs using a digital camera/phone/tablet computer Import images from digital camera/phone Edit images using image editing software Connect laptop/tablet computer to internet using mobile phone/WIFI hotspot/dongle Email story to editor's office Email photos separately using phone/laptop/tablet computer.</p>	6
8(b)	<p>Six from:</p> <p>Edit/format the journalist's story to remove mistakes Crop the images to remove unwanted material Resize the image to fill the layout Choose margin sizes Produce the layout/template of the magazine page Kerning – the process of adjusting the space between individual letters in words Adjusting the leading – the space between lines on a page Adjust the size/type of font in the bodytext Adjust the size/type of font in the headings/headlines Change the font type so it is easy to read Adjust the font size so it is small enough for stories to fit on a page Adjust the font size so it is large enough to read.</p>	6

Question	Answer	Marks
9	<p>Four from:</p> <p>Have less contact with colleagues More difficult to discuss ideas with colleagues Cannot see the editor daily... ...so have less chance to impress editor to improve job prospects More difficult to attend meetings to keep up to speed with newspaper developments.</p>	4

Question	Answer	Marks
10	<p>Two from:</p> <p>Ultraviolet light is allowed to pass through the film negatives... ...to expose the printing plate When the plates are exposed to light, a chemical reaction occurs This allows the light-sensitive coating on the aluminium to develop the image.</p>	2

Question	Answer	Marks
11	<p>Eight from:</p> <p><i>He would need exception reports to:</i> Make sure that somebody was not being paid too much Tell him if the system was working properly or not Let him know if the system was accepting duplicate data</p> <p><i>He would need to have financial reports so that:</i> He could see trends in pay across the company He could compare pay across departments in the company He could see the pay structure within departments He could see how much the company was spending on paying the workers/tax authorities</p> <p><i>Examples</i> <i>Exception reports</i> An employee earning an unusually large amount of money An employee who has been on an emergency tax code for a long period of time Two employees having the same national insurance number</p> <p><i>Financial reports</i> Information about all employees of the company Information about employees in a given department Information about the salaries of all employees Total salaries of all employees National insurance contributions for all employees The total amount of national insurance contributions paid to the tax authorities The income tax that each employee has paid The total amount of income tax paid to the tax authorities The amount of money paid to each bank that employees have an account with All the earnings and deductions of employees The earnings and deductions of each employee by department A summary of all the totals of the earnings/deductions of each department.</p> <p>Must have reasons to gain more than 6 marks.</p>	8

Question	Answer	Marks
12(a)	<p>Two from:</p> <p>Could observe <u>users performing set tasks...</u> ...and record their progress using video recording Get a user to perform a task and measure the time it takes them to carry out the task.</p>	2

Question	Answer	Marks
12(b)	<p>Five from:</p> <p>Observation gives you an overall view of the whole system Observer can see how separate tasks overlap Can see how workers interact Can see if the methods being used are efficient Does not give you an opportunity to find out what users think of the new system Some people who know they are being observed change the way they work</p> <p>1 mark is available for a reasoned conclusion.</p>	5

Question	Answer	Marks
13	<p>Eight from:</p> <p>You would have a time axis horizontally A list of stages of the project/systems life cycle vertically Some activities would be in sequence horizontally Some activities would be in parallel vertically Examples of sequential activities would be Analysis, followed by Design followed by Development, Testing, Implementation then Evaluation One mark for any two individual examples of parallel activities within different stages of the systems life cycle (one from each of Analysis, Design, Development, Testing, Implementation, Evaluation e.g. Analysis –interviews, questionnaires, examining documents, observation).</p> <p>One mark for any two individual examples of sequential activities from different stages of the systems life cycle (e.g. Designing the required data structures and creating the data structures).</p>	8