



**General Certificate of Education (A-level)
June 2012**

ICT

INFO3

(Specification 2520)

Unit 3: The Use of ICT in the Digital World

Final

Mark Scheme

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<p>1(a)</p>	<p><i>The “Hope” team considered only internal factors when devising its ICT strategy.</i></p> <p><i>Describe one external factor that they should have considered and provide a relevant example.</i></p>	<p>(4 marks)</p>
	<p>Guidance for examiners on how to mark this question</p> <p>To gain maximum marks, must identify a valid external factor and provide a relevant example.</p> <p>Maximum of three marks if the answer is not relevant.</p>	
	<p>Example answer</p> <p>The Hope team should have considered legislation. (1) Legislation has its own requirements, which would be additional to the business requirements. (1)</p> <p>An example of an external factor is the requirement to meet the provisions of the Data Protection Act. (1) The youth centre’s customers need to have their subject data held securely. (1)</p>	

<p>1(b)</p>	<p><i>The “Hope” team suggested that all ICT be outsourced and referred to a Service Level Agreement (SLA).</i></p> <p><i>Describe the purpose of an SLA and state what could be included in a typical SLA.</i></p>	<p>(6 marks)</p>
	<p>Guidance for examiners on how to mark this question</p> <p>One mark per valid point or extension/example. Maximum of four marks for purpose and four marks for contents.</p>	
	<p>Example answer</p> <p>A service level agreement is a formal written document (1) that defines the service levels agreed between an outsourcing company (1) and the youth centre. (1)</p> <p>Items would include:</p> <ul style="list-style-type: none"> • Duration of agreement (1) • Cost of service (1) • Average time to respond to a call-out (1) 	

<p>1(c)</p>	<p><i>The “Hope” team suggested that a Customer Relationship Management (CRM) facility be provided.</i></p> <p><i>Using an example, describe a CRM system.</i></p>	<p>(4 marks)</p>
	<p>Guidance for examiners on how to mark this question</p> <p>One mark for each descriptive point. Both a description and example needed for max marks.</p>	
	<p>Example answer</p> <p>A Customer Relationship Management system records details of all transactions and contacts made with a customer (1) and uses these to analyse shopping habits. (1)</p> <p>Loyalty card systems (1) used by supermarkets are an example of a CRM system. When purchases are made the customer presents the loyalty card and the CRM systems accumulate points or credit (1) for use at a later date.</p>	

<p>2</p>	<p><i>Team “Endurance” confined its investigation to a narrow area of research.</i></p> <p><i>Discuss appropriate investigating and recording techniques that team “Endurance” could have used.</i></p>	<p>(12 marks)</p>
	<p>Guidance for examiners on how to mark this question</p> <p>Low mark range One or more techniques briefly described, some of which may be appropriate. 0 – 4 marks</p> <p>Mid mark range Candidate discusses a range of techniques, some of which may be appropriate, or candidate describes one or more technique in detail. 5 – 9 marks</p> <p>High mark range Candidate discusses a range of techniques and their suitability given the context. 10 – 12 marks</p>	

<p>3</p>	<p><i>To meet Scarlet Price’s requirement for data security, team “Endurance” has considered the need for off-site storage as part of its backup and recovery strategy.</i></p> <p><i>Discuss other factors that should have been considered when developing a backup and recovery strategy for the youth community centre.</i></p>	<p>(8 marks)</p>
<p>Guidance for examiners on how to mark this question</p> <p>One mark for each factor and further marks for extensions/examples. More than one factor required for max marks.</p> <p>Maximum six marks, unless backup and recovery are included and the answer is in context.</p>		
<p>Example answer</p> <p>A major factor in any new backup strategy is determining when the backups should be taken. (1) These should be taken at regular intervals, according to the number of transactions at the youth centre. (1)</p> <p>The backup and recovery arrangements for all systems should be documented. (1) This documentation should be checked and updated whenever new systems are added or major changes implemented. (1)</p> <p>Responsibility for backup and recovery is a further factor. (1) The manager of the youth centre should be responsible for testing recovery procedures. (1)</p> <p>The finance available (1) for backup and recovery is an important factor as this may determine the type of media to use. (1)</p>		

<p>4</p>	<p><i>Based on the proposals from both teams regarding the use of ICT, SP decided that team “Hope” won the competition, although she stated that team “Endurance” had some sound ideas.</i></p> <p><i>Using the boxes below, list the strong and weak points of the proposals made by each team. For each point listed, explain why you consider it to be strong or weak.</i></p> <p><i>(Box 1 Team “Hope” strong points)</i> <i>(Box 2 Team “Hope” weak points)</i> <i>(Box 3 Team “Endurance” strong points)</i> <i>(Box 4 Team “Endurance” weak points)</i></p>	<p>(16 marks)</p>
<p>Guidance for examiners on how to mark this question</p> <p>One mark per point. One mark for a valid extension. For maximum marks, all four boxes are to contain at least one valid point.</p>		
<p>Example answer</p> <p>Hope strong points:</p> <ul style="list-style-type: none"> • The proposed use of packages is practical. (1) This is a strong point as the Youth Centre would be up and running in a short timescale. (1) • The CRM system (1) will maintain a relationship with users of the youth centre. (1) <p>Hope weak points:</p> <ul style="list-style-type: none"> • No mention was made of any security measures. (1) Given the number of people using the Youth Centre facilities, information security is important. (1) • Outsourcing. (1) Use of outsourcing means that the users may not have regular face-to-face meetings with the development staff. (1) <p>Endurance strong points:</p> <ul style="list-style-type: none"> • Suggested social networking sites (1) are used for publicity. This is strong point as social networking is likely to be popular with the Youth Centre clientele. (1) • The team identified a need for backup and recovery. (1) The need to keep data secure is a principle of the DPA. (1) <p>Endurance – weak points:</p> <ul style="list-style-type: none"> • Use of an internal ICT department. (1) Given the initial scale of the required ICT, an internal ICT department would be difficult to justify. (1) • Bespoke development. (1) The bespoke system would take a long time to develop. (1) 		

5	<p><i>Explain how Internet and mobile technologies can be used by organisations to help with the retention of customers.</i></p>	(9 marks)
	<p>Guidance for examiners on how to mark this question</p> <p>One mark for each valid point made, plus further marks for extensions/examples. Do not give credit for purely business answers – there must be an ICT context.</p>	
	<p>Example answer</p> <p>Customer contact can be maintained through email systems (1) and text messaging (1) using email addresses and mobile phone numbers (1) kept by an organisation as a result of previous transactions (1) and retained on CRM systems. (1)</p> <p>Using GPS (1), special promotional text messages (1) can also be sent to customers when near to retail outlets. (1)</p> <p>Customers can also be given access to extranets. (1)</p>	

6(a)	<i>Explain why some organisations continue to use legacy systems.</i>	<i>(2 marks)</i>
	<p>Guidance for examiners on how to mark this question</p> <p>One mark for each valid point or extension made.</p>	
	<p>Example answer</p> <p>Legacy systems are generally reliable (1) as all errors have been uncovered and corrected. (1)</p>	

6(b)	<i>Using an example, explain how organisations are able to use legacy systems to support the provision of web-based systems.</i>	<i>(4 marks)</i>
	<p>Guidance for examiners on how to mark this question</p> <p>One mark for each explanation and an example is needed for full marks.</p>	
	<p>Example answer</p> <p>Organisations can develop new systems by accessing data contained in legacy systems. (1) This can be performed using screen-scraping (1), where information from multiple legacy systems is re-displayed to users. (1)</p> <p>Price comparison websites (1) typically use screen-scraping to access the legacy systems from multiple organisations.</p>	

<p>7</p>	<p><i>An international organisation with many offices worldwide is about to move to a new version of the operating system used on its PCs, laptops and other mobile devices. The management of the company is considering the following two methods of changeover:</i></p> <ul style="list-style-type: none"> • <i>Direct changeover</i> • <i>Phased changeover.</i> <p><i>Compare the two changeover methods being considered. Recommend and justify one option.</i></p>	<p>(15 marks)</p>
	<p>Guidance for examiners on how to mark this question</p> <p>Low mark range Candidate has attempted to describe changeover methods. 0 – 5 marks</p> <p>Mid mark range Candidate describes both methods and includes a recommendation and/or justification. 6 – 10 marks</p> <p>High mark range Answer is in the context of the question and considers at least one of: operating systems; international operation; range of devices. It also includes a recommendation and justification. 11 – 15 marks</p>	

<p>8</p>	<p><i>Discuss the implications of possible future developments and future uses of ICT.</i> <i>Include in your answer the impact future developments may have on the way organisations are run.</i> <i>The quality of written communication will be assessed in your answer.</i></p>	<p>(20 marks)</p>
	<p>Low mark range Candidate identifies one or possibly two future developments, but with little understanding of the likely impact upon organisations. Candidate uses a form and style of writing that is barely appropriate for its purpose. Candidate has expressed simple ideas clearly but may be imprecise and awkward in dealing with complex or subtle concepts. Information or arguments may be of doubtful relevance or be obscurely presented. Errors in spelling, punctuation and grammar may be noticeable and intrusive to understanding, suggesting weaknesses in these areas. Text is barely legible.</p> <p style="text-align: right;">0 – 5 marks</p> <p>Medium mark range Candidate describes some future developments and references the impact upon how organisations may be run. A form and style of writing is used which is sometimes appropriate for its purpose but with many deficiencies. Candidate has expressed straightforward ideas clearly, if not always fluently. Sentences and paragraphs may not always be well-connected. Information or arguments may sometimes stray from the point or may be weakly presented. There may be some errors of spelling, punctuation and grammar but not such as to cause problems in the reader’s understanding and not such as to suggest a weakness in these areas. Text is legible.</p> <p style="text-align: right;">6 – 10 marks</p> <p>Good mark range Candidate explains a range of future developments and expresses some thoughts about how organisations will be run. The meanings and arguments are clear. Candidate has in the main used a form and style of writing appropriate for its purpose, with only occasional lapses. Candidate has expressed moderately complex ideas clearly and reasonably fluently. Candidate has used well-linked sentences and paragraphs. Information or arguments are generally relevant and well structured. There may be occasional errors of spelling, punctuation and grammar. Text is legible.</p> <p style="text-align: right;">11 – 15 marks</p> <p>High mark range Candidate has discussed future developments and has detailed the implications for both the present and the future. Meaningful assumptions are made about how organisations will be run and plausible examples used. Meaning is clear. Candidate has selected and used a form and style of writing appropriate to purpose and has expressed complex ideas clearly and fluently, using specialist terminology where appropriate. Sentences and paragraphs follow on from one another clearly and coherently. Specialist vocabulary has been used appropriately. There are few, if any, errors of spelling, punctuation and grammar. Text is legible.</p> <p style="text-align: right;">16 – 20 marks</p>	