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ASSESSMENT and QUALIFICATIONS ALLIANCE

General Certificate of Secondary Education

Applied Information and Communication Technology (Double Award) 3851

Report on the Examination

2006 examination - June series

- Unit 1 ICT Tools and Applications
- Unit 2 ICT in Organisations
- Unit 3 ICT in Society

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Applied Information and Communication Technology (Double Award)

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Unit 1 – ICT Tools and Applications

Introduction

Teacher Standardisation meetings in the autumn term were extended from half a day to a full day devoted to each unit. Centres were issued with a detailed marking guidance and have also been provided with a specification support document. Those that attended the meetings and have paid attention to the advice given in the specification support document and the marking guidance have benefited from them and shown improvement within a number of areas within this unit.

Moderators were pleased to note that many centres are now using the marking grid in addition to annotating the candidates work. This practice is to be encouraged. Using the grids and annotating the work enabled moderators to see exactly where marks were being awarded which resulted in detailed feedback being given to centres.

Moderators were very concerned that a number of centres did not meet the published deadlines for submission of marks for portfolio work. Centres are reminded that if deadlines are not met there is a serious risk that candidates' results for that centre will not be published at the expected time. Centres are reminded that the three units that make up the specification are moderated and examined by different people, and so sending all candidates' work to one moderator will delay the moderation process.

In order to ensure the smooth running of the moderation process, centres are reminded to check that the portfolios are tied together loosely with a treasury tag through the top left-hand corner, and that each portfolio has the correct Candidate Record Form attached that has been signed by the candidate and the teacher. This is imperative as under the new QCA regulations, failure to do this will result in a candidate being awarded zero. The completed Centre Declaration Sheet must also be enclosed.

This is the fourth year that the unit has been moderated. The unit consists of five sections; report reviewing documents, production of documents, description and evaluation of documents, report/presentation on specialist software, and standard ways of working. Although these sections make up one unit, they are to be assessed as individual sections, and so marks allocated for section 1 cannot be awarded for section 3. Candidates must provide evidence for all 5 sections. If candidates use screen prints in any of the sections it is expected that they be of a size that can be easily read.

Report Reviewing Documents

Candidates are required to produce a review of two business documents. It is a requirement that the original documents are included. Candidates who failed to submit the original documents were given the opportunity to provide them to the moderator. Candidates who failed to provide their original documents at this stage were subject to a negative adjustment to their marks.

The documents need to show the use of three software applications, which are to be highlighted by the candidate. To gain basic marks, the candidate will describe the content, layout and purpose of the documents. To gain higher marks they will evaluate the documents and make suggestions for improvements.

Handwritten reports are not accepted. Page 26 of the specification highlights that all work (other than annotation) should be word-processed.

Templates, such as letterheads, blank memos, blank fax covers, and blank invoices are not considered complete documents, and so are unacceptable. Ephemeral items such as lottery tickets and CD covers are not considered business documents. When choosing documents for review, candidates should be

encouraged to select documents that will give them the scope to extend their discussion on the document. Teachers should take the opportunity to discuss the importance of anonymising information in the event of personal documents being selected for review. Although names may be left, it is recommended for security reasons that details such as bank account details and sort codes are deleted.

Some centres provided candidates with a table format for their report. Although this is helpful in order to guide candidates' thoughts, the space provided was often restrictive and meant that candidates did not provide the depth required. Other centres provided a report format, which again helps to structure the candidates' thoughts. Some of the headings, however, did not provide the candidate with the relevant direction to discuss fully what was required, for example, content, layout and purpose.

Candidates who reviewed documents of the same type limited the amount of discussion that they were able to provide for each. Two different documents showing evidence of different software applications provides candidates with greater opportunities for discussion. Moderators noted that many centres are encouraging candidates to review documents particular to other Countries. Although this does not result in any loss of marks, centres should be aware that this specification is UK specific and some business documents from other countries follow slightly different practices which are not appropriate for the UK.

Moderators are please to note that many candidates reviewed the required amount of documents, rather than enclosing all which had been part of their teaching and learning. This aided the moderation process greatly.

Section A: Candidate produces a basic description of the content, layout and purpose of two business documents produced using at least a single software application (4 marks)

Candidates need to discuss the purpose and both the content and the layout of two documents. Most candidates were able to do this at a basic level. Candidates achieved these marks when they briefly described where the text and the graphics were positioned on the page and highlighted the features of the documents, for example the address, salutation, main body text. The purpose of the document, even at the basic level, must be accurate. Even where candidates had made a good attempt at this, but had not understood the purpose of that document, they cannot be awarded the mark. The purpose, at this level was usually generic, for example, "…the invoice is to tell the customer how much money they owe…"

Section B: Candidate produces a more detailed description of the content, layout and purpose of two business documents, produced using two software applications, and attempts an evaluation of the suitability for purpose of the collected documents (7 marks)

Candidates are expected to refer to the documents they are reviewing rather than discussing, in general terms, types of documents. Some candidates produced very detailed descriptions, demonstrating great observation and understanding of the document being reviewed. They referred to the style of document, the paper size and orientation, made reference to margins and used technical terminology, the language used, the way the document was written in relation to the audience, and details within the document. In order for candidates to achieve the detailed descriptions, it is required that both the content and the layout descriptions are detailed. Candidates often concentrated on the layout and failed to further their description of the content. Many candidates discussed the software through the use of brand names. Brand names are not accepted and candidates are encouraged to discuss the types of software used. Candidates tended to discuss the purpose of a document in general terms, for example "The invoice is to inform the client how much they owe". In order to achieve the detailed marks, candidates need to discuss the actual purpose of the document being reviewed, for example "The invoice is to inform Mr X that he owes Company Y £50 and that he has to pay within 30 days."

The majority of candidates managed to provide a simplistic evaluation of the documents, giving either one strength or weakness without any justification as to why.

Section C: Candidate produces a very detailed description of content, layout and purpose of business documents produced using three software applications and evaluates suitability for purpose of the collected documents (6 marks)

Candidates need to suggest a third software application used within the documents being reviewed and explain how this software enables the document to meet its purpose. Few candidates were able to give a detailed evaluation of the documents as they often lacked the reasoning as to 'why' something was a strength or a weakness in relation to the purpose of the document.

Section D: Candidate produces a very detailed and well-structured description of content, layout and purpose of documents produced using three software applications, and evaluates in detail their suitability for purpose, suggesting how they could be improved (4 marks)

Moderators were please to note that most Candidates' reports showed evidence of different structure techniques. The majority of candidates used headings and paragraphs and bullets/numbering, but few used an introduction and a conclusion to the report. On some occasions candidates provided an introduction, but failed to provide a conclusion. Where this occurs, candidates are unable to achieve the mark.

Many candidates were able to suggest improvements to the documents. This alone is not sufficient to achieve the marks. Candidates are required to justify the suggestions they make.

Production of Documents

Candidates are required to create three original documents. 'Original' relates to the content of the document, as well as its layout. Some centres provided candidates with the text for the documents. This is not acceptable practice. Candidates are expected to know the difference between formal and informal text and be able to apply this to different situations, this is integral to this unit.

At least two of the documents need to demonstrate the integration of two software applications. At least one document needs to demonstrate the integration of three software applications. Candidates need to show that they can use ICT tools to search, select, and organise information. The documents produced need to be fit for purpose. At least three sources need to be evidenced.

Moderators were pleased to note that many candidates achieved well in this section with the correct evidence being provided to show complex integration. Many candidates produced three very good documents and provided all the evidence required for all aspects of the assessment criteria.

Incomplete items, such as:

- a letterhead
- a fax cover template (without details or body text)
- a memo template (without details or body text)
- a logo

cannot be credited with marks.

Centres are reminded that a database is not a document, but a report created by the database is.

In order not to disadvantage themselves, candidates need to produce at least three documents. If more than three documents are produced, the best three are to be selected, taking into account all aspects of the production including the evaluation.

Section E: Candidate produces some documents which demonstrate capability with one software application (5 marks)

The majority of candidates achieved these marks by producing 2 documents that showed a degree of capability in one software application, and with one document satisfying an accepted layout. It was pleasing to note that the advice from previous years had been taken and a variety of software applications were used showing a range of skills.

Section F: Candidate produces a range of documents which demonstrate good capability with two software applications, including effective use of ICT to search for, select and organise information from a range of sources (8 marks)

The majority of candidates provided a satisfactory range of documents which showed some degree of capability within two software applications. Evidence was generally heavily weighted towards Desktop Publishing and Word Processing. In order to achieve all marks for the demonstrating capability within the software applications, the documents produced must be of a quality suitable for the work place and demonstrate the skill outlined on page 16 of the specification.

Candidates who provided evidence of using ICT to search and select provided appropriate and detailed screen prints showing the use of a search feature and evidence of the appropriate search criteria, which was entered into the correct field and was related to the content of the unit. There was evidence to show that the information generated had been used in some way in the unit. Moderators were disappointed to note that many candidates did not provide any evidence for this criterion.

The majority of candidates were able to demonstrate the organisation of information, primarily through the use of a graph or table. Some examples were contrived in order to fit into the assessment criteria, rather than being fit for purpose.

Section G: Candidate demonstrates capability to integrate two software applications to produce documents, including searching, selecting and organising using ICT tools (5 marks)

This section showed a significant improvement on last years examples of complex integration. Many candidates were successful in providing good, detailed evidence of the integration of two software applications to produce an effective document. Fewer candidates referred to copying and pasting applications which is a simplistic integration. Moderators observed that fewer candidates used Clipart, which does not show the integration of two software applications, unless evidence is provided that it has been altered in some way. Most candidates showed screen prints of a before and after shot of the image with an image manipulation package, and then showed it being used within a document, were successful.

The evidence provided by candidates for the integration of a spreadsheet into a document (showing the use of formulas within the spreadsheet) and the integration of a mail merge, (showing that the fields within the document as well as the data table) was evident by many candidates. Centres are to be commended for ensuring the correct evidence was provided. Some candidates continue to print out all the mail merge documents. This is not necessary. The document with the mail merge fields, the database table and one example of a completed mail merge is sufficient evidence.

Section H: Candidate integrates three software applications to produce complex documents that are fit for purpose (7 marks)

Many candidates successfully showed the integration of three software applications within one document. See comments above for the ways in which this has improved. Centres should refer to the Specification Support document for a detailed list of the types of evidence required by candidates.

To gain full credit, candidates must show that all three documents are fit for purpose, free from obvious spelling mistakes, and with correct capitalisation and accepted layouts used. Capitalisation and 'text speak' are problematic areas, hindering the ability to achieve full marks within this area.

Description and Evaluation of Documents

Candidates are required to show the development of the documents created through the use of annotation. These documents need to be evaluated and then compared with like commercially produced documents. These documents are to be enclosed with the portfolio.

Many candidates produced a step-by-step guide to how they created their documents. This is not needed and does not assist them in gaining additional marks. Most candidates attempted to annotate their work, although the annotations often lacked depth and were generally labels.

Section I: Candidate indicates clearly how the software features are used to meet the purposes of the documents produced (6 marks)

The majority of candidates confused the identification of software features with the identification of documents features. Although it is important for candidates to know the features that are required for a document, (the address, salutation, closure, main body text, etc), this is not assessed within this section. Those that did identify the features of the software (use of bold, italics, tabs, text wrap, text boxes, and so on), did so within a commentary or thorough labelling of the documents. Few candidates were able to link these features with the purpose of the documents.

Section J: Candidate produces corrected and annotated drafts to show how the documents were developed (8 marks)

This section requires the annotation to be carried out on the actual documents created. Some candidates used sparse labels to highlight errors and omissions, but failed to show a document with the corrections having been made. They did not, therefore, achieve the marks for J1 and J2. Other candidates showed detailed annotations on how the documents were created. It is important to remember that creation of a document does not show errors and omissions corrected, nor the development of a document. It is expected that candidates produce the document with the written text and graphics and from this point develop it. It is unlikely that a candidate will not find any errors or omissions within their documents, however, in the event that this happens, candidates must state that they have checked for errors and the document must show that it is free from errors.

Where candidates use the use of screen prints of their documents in which to text box annotate the documents, the screen prints should be of a size that is legible. If the moderator is unable to read what is there it cannot be marked.

Section K: Candidate produces corrected and annotated drafts of documents and attempts a basic evaluation (4 marks)

Few candidates provided meaningful drafts that were annotated in detail to show development. Some candidates used the format for section 1, reviewing documents, to write an evaluation on their own documents. This was a useful task for the candidates, however, the emphasis for this section is slightly different and many candidates omitted to evaluate the documents in relation to the purpose and audience. Some candidates produced simple statements stating that the documents were suitable for the purpose and the audience. This, on its own, is not sufficient and needs to have some justification as to why.

Section L: Candidate produces corrected and annotated drafts of documents and evaluates own documents by comparison with similar commercially produced documents (4 marks)

It was disappointing to note that many candidates did not attempt this section. Those that did were often successful in finding the similarities and differences between their own documents and commercially produced ones. The candidates found it difficult, however, to justify these by reference to the purpose and the audience. Some candidates described all the documents, but failed to compare them.

Report or presentation on organisations using a range of sensing and image manipulation software

Candidates need to describe 'CAD/CAM', 'sensing and control' and 'image manipulation' software, identifying 3 features of each software type. They need to describe how these are used in organisations and evaluate the impact they have had on businesses. Candidates can present this information as either a report or a presentation. Many candidates who produced a presentation failed to provide supporting speakers' notes, which limited the detail provided. Although looking at other software types is a useful teaching and learning experience it is not required for this section. Information regarding word processing, desktop publishing, databases and spreadsheets are not required and should not be enclosed.

Moderators were disappointed to note that many candidates appeared to take a 'minimalist' approach to this section, or centres chose to omit it altogether. Moderators were pleased to note that centres appeared more confident in how to award the marks within this section.

For candidates not to disadvantage themselves they need to address all three types of specialist software.

Section M: Candidate describes two features of the use by organisations of CAD/CAM, sensing and control or image manipulation software (3 marks)

This section is focussing on one of the types of specialist software. Many candidates simply listed the features of the software, rather than describing them. Simplistic bullet points are not sufficient. Candidates are required to describe two of the features of their chosen specialist software. If one of these features provides additional detail an extra mark is awarded. Candidates who provided a description, rather than a list, were more successful in this section.

Section N: Candidate describes three main features and purposes of the use by organisations of CAD/CAM, sensing and control, and image manipulation software (4 marks)

Candidates need to describe one additional main feature for the software described in the first part of this section to achieve one mark.

As many candidates only focussed on one specialist software type they were unable to achieve many marks within this area. Again, where candidates attempted to outline the features of the remaining two software types they failed to describe them, but listed the main features.

Section O: Candidate describes in detail three main features and purposes of organisations' use of CAD/CAM, sensing and control, and image manipulation software and evaluates briefly the impact on businesses of this use (3 marks)

The majority of candidates produced a good description of how one of the software types was used and evaluated its impact on business. However, in order to achieve these marks, all three of the software types need to be addressed.

Section P: Candidate describes in detail three main features and purposes of organisations' use of CAD/CAM, sensing and control, and image manipulation software and evaluates in detail the impact on business of this use (3 marks)

Although some candidates tended to list the impact as 'quicker..., 'cheaper…' rather than including any significant detail, moderators were pleased to note that the understanding of many candidates as to how the introduction to specialist software to a business or organisation showed much more understanding.

Standard Ways of Working

Candidates need to show that they can organise their work into effective files and directories. They need to show evidence of having regularly saved work and show an understanding of backing up their work. Candidates need to demonstrate an understanding of copyright issues. In addition candidates need to show that they have used at least 3 sources of information and checked to make sure that this information is accurate. Witness statements are not accepted. The sources must relate to the content of the unit.

Where candidates provided detailed screen prints for the directory structure for this unit, which showed the files within the folders, they achieved good marks. Moderators were pleased to see that many candidates showed their back up folder, with its contents, or provided a detailed account of how the school's network was backed up. Some candidates thought it acceptable to mention that they were aware of copyright and this would be sufficient to achieve the mark. Candidates are, however, required to show an awareness of the impact of copyright restrictions on their way of working. Just outlining the Copyright Designs and Patents Act does not show an understanding of personal impact.

Moderators were pleased to see that candidates appear to understand how this award expects information on the verification of information to be documented. This resulted in some improvement within this area. Some centres are still verifying information that is not related to this unit. This is not required and candidates will not achieve the marks for carrying out unrelated verification. Some candidates tried to verify a source by showing screen prints of websites. If candidates choose to do this it is expected that they show the information being verified and not leave it to the assessor to try and discover. In these circumstances candidates need to also ensure that the screen prints do in fact show the same information rather than just a home page.

Conclusion

The feedback forms to centres this year continue to be very detailed in order to assist the centres in their future development of this unit. Centres are reminded that ongoing support is available throughout the year. Centres requiring help in the interpretation of the specification or guidance on schemes of work or delivery should contact the AQA Portfolio Adviser by e-mail at aqagcseappictpa@aqa.org.uk.

Unit 2 – ICT in Organisations

Introduction

As with unit 1, Teacher Standardisation meetings in the autumn term were extended from half a day to a full day. Centres were issued with a detailed marking guidance and have also been provided with a specification support document. The overall results, however, were not as positive as those for Unit 1. Some centres have taken the information that they have received and produced some very good portfolios where candidates have shown a real grasp of the requirements, other centres, however, have shown a lack of understanding of what is required.

Moderators were pleased to note that many centres are now using the AQA marking grid in addition to annotating the candidates' work. Centres are to be commended on this as it is a practice that should be encouraged. Use of the grids and the annotation on the work enabled moderators to see exactly where marks were being awarded, which resulted in detailed feedback being provided to centres.

A large amount of centres did not meet the published deadlines for submission of marks for the portfolio work. This seriously hindered the moderation process. Centres are reminded that if deadlines are not met there is a serious risk that candidate results for that centre will not be published at the expected time. Centres are reminded that the three units that make up the specification are moderated and examined by different people, and so sending all candidates' work to one moderator will delay the moderation process.

In order to ensure the smooth running of the moderation process, centres are reminded to check that the portfolios are tied together loosely with a treasury tag through the top left-hand corner, and that each portfolio has the correct Candidate Record Form attached that has been signed by the candidate and the teacher. This is imperative as under the new QCA regulations, failure to do this will result in a candidate being awarded zero. The completed Centre Declaration Sheet must also be enclosed.

Due to the nature of this unit it is understood that case studied and research on the internet will take place and many of the findings of candidates will be similar. Candidates, however, should not produce their assessment work as a group and should be reminded that any work produced, which is either copied or not their own, will not be awarded marks. In addition to this they could risk being disqualified from the award.

This is the third year that the unit has been moderated. The unit consists of four sections; description of ICT systems, hardware, design of an ICT system and the evaluation of the ICT system. Candidates are expected to provide evidence for all 4 sections. If candidates use screen prints in any of the sections it is expected that they be of a size that can be easily read.

Description of ICT Systems

Candidates are expected to write a description of three ICT features from each of the two named, contrasting organisations that they have chosen. Many candidates appeared to have made the decision to only discuss one organisation. Most of the criterions within this section require elements to be discussed within both organisations to achieve a mark. Candidates who did not discuss both organisations were at a disadvantage within this section of the unit.

The majority of candidates named the organisations being described, however, there are still some candidates who are providing a general overview of how ICT is used within, for example 'banking' or 'supermarkets'. This section is expected to be a case study and therefore candidates must name the organisations studied. Failure to do so results in the loss of marks.

Section A: Candidate produces a basic description of two features of the use of ICT by two contrasting organisations (5 marks)

Most candidates were able to identify two organisations and include detail of at least one application of ICT within the organisations. Some candidates, however, did not name the organisations and referred to generic institutions such as schools or hospitals. In some cases, the description of ICT was very generic; for example, ICT is used in finance, with no further detail as to the type of application used. Many centres appeared to award marks for descriptions of the organisations' structure or background, rather than its use of ICT. Many candidates appeared to provide a minimalist approach to this section. Although no more that a basic description is required, it is expected that a description of the ICT and how it is used is included rather than just a simplistic statement.

Most of the organisations chosen by candidates were appropriate and contrasting. However, in some cases, candidates had chosen two organisations that were very similar, for example, two high street stores. The result of this meant that there was repetition in the descriptions of the features. This should be avoided.

Section B: Candidate produces a more detailed description of three features of the use of ICT by two contrasting organisations and describes briefly two advantages and two disadvantages of these systems (4 marks)

Many candidates failed to describe three distinct uses of ICT for both of the organisations they had identified. There were candidates who described three uses of a single ICT application rather than three distinct applications of ICT. This is not what is required. Some candidates included more than three descriptions of ICT. Where this happens candidates are only awarded marks for the three best descriptions. Candidates should be encouraged to include no more that three features for each organisation. This will greatly assist the moderation process.

Advantages were often identified and sometimes described well. In order for an advantage mark to be awarded, an advantage must be described for both organisations. Centres occasionally misunderstood this and awarded marks for only one advantage for one organisation.

Disadvantages were less well done. Candidates often described generic problems such as "It might break down" or "It might get a virus" or "It might crash" and did not consider the measures taken by the organisation to avoid this. Few candidates appeared to consider both the organisation and the ICT when trying to identify a disadvantage. Again, centres often awarded this mark where disadvantages had not been described for both organisations

Section C: Candidate produces a very detailed description of the main features of the use of ICT including two advantages and two disadvantages, and the impact of ICT systems within organisations, referring to working practices, cost and also information and processing characteristics, using three different sources (8 marks)

Many candidates included simple descriptions of the ways ICT was impacting the organisation. Some candidates, however, found this difficult as they had chosen organisations that did not make much use of ICT or were entirely ICT dependent. Centres sometimes awarded this mark where the candidate had not described the impact of ICT on both organisations.

Describing the impact on working practice was carried out less well, as few candidates appeared to consider the ways in which peoples approach to working has changed since the introduction of ICT. Few candidates included sufficient detail to be awarded both marks. Again, some centres awarded this mark where only one organisation had been considered.

Many candidates attempted to include details of cost, but these were often either generic responses that did not relate directly to the organisation or were details of prices and did not consider the full working and long-term costs to the organisation. Few candidates included details of cost benefits and a description of the ways in which the ICT had made the organisation more cost efficient.

Candidates generally included details of the information that was contained in at least one of the ICT systems they had described. Centres are reminded that to achieve an information mark this must be carried out within both organisation. Processing was less well done, with candidates often omitting the ICT system process, but discussing, for example, in terms of a customer entering a shop and buying goods. The way the ICT system processes information is what is required and must be included within both organisations to achieve a mark.

Moderators were encouraged to see that many candidates are now beginning to reference sources correctly. Although candidates often outlined three sources, many were of the same type and could not therefore be awarded the marks. The requirement is for candidates to correctly references three different types of sources used for their research.

Section D: Candidate produces a very detailed and well-structured description of the main features of ICT use, including advantages and disadvantages, impact, details of information and processing characteristics of the chosen systems, referring to verifying data, security and robustness, using three sources, showing evidence of validation (6 marks)

Moderators were please to note that most Candidates' reports showed evidence of different structure techniques. The majority of candidates used headings and paragraphs and bullets/numbering, but few used an introduction and a conclusion to the report. On some occasions candidates provided an introduction, but failed to provide a conclusion. Where this occurs, candidates are unable to achieve the mark.

Some candidates demonstrated a good understanding of the verification of information by one of the organisations discussed. Examples such as the use of the check digit on a bar code, or the double entry of a password for the process on an internet registration process was common. Some centres are still confusing this with the verification of information collected by the candidate. This is awarded marks separately and should not be awarded here as well.

Moderators were please to see that candidates showed an understanding of the security measures taken in order to protect the information on the systems. The most common details were of the use of passwords and user names, firewalls, secure websites and anti virus software. Sometimes this element was confused with the robustness of data. Backing up a system is not robustness of data, but security of information. There was very little evidence that candidates understood the term robustness in terms of data in the systems they had described. Few candidates described the way in which the systems they had described try to restrict data entry to reduce the risk of the system crashing, or to protect the system from the user. Some candidates included details of validation techniques, though sometimes these were generic rather than specific to the system described. Some candidates had tried to apply their theory knowledge of validation to the systems described but came up with unrealistic scenarios. Some good examples were the way websites use postcode validation and lookup to help customers add their address to forms and the way concept keyboards or touch screens are used to restrict data entry in systems such as EPOS.

Moderators were disappointed to note that although the validation of information used for their research is a common feature for all three units, there was little evidence within this unit of candidates attempting this criterion.

Hardware

Candidates are required to produce a description of three hardware features, which includes technical details. In addition to this they need to identify the cost and effect these features have on the efficiency of the whole system. Candidates are expected to describe three types of connectors which included technical information.

This section rarely showed understanding by the candidates. Much of the information written by the candidates had been taken directly from well-known sources and many candidates did not attempt to make this information their own. Some candidates simply listed different brand specifications for different hardware devices. This was disappointing.

Candidates should be encouraged to provide an in-depth study of three hardware features rather than a brief description of lots of hardware features. If more than three hardware features are identified, the strongest three are chosen for awarding purposes and the remainder are ignored.

Section E: Candidate produces a basic description of two hardware features of ICT systems (6 marks)

Most candidates were able to identify two hardware features on which to base their report. A significant number of candidates, however, identified specific makes and models rather than generic hardware types.

Simple descriptions of the purpose of the hardware were often sufficient to be awarded marks. However, some candidates had included descriptions which appeared to be the specifications of specific makes and models which did not include the simple description of, for example, "A printer is…"

Many candidates had included the technical description of how the hardware works. However, it was sometimes difficult to be sure that it was the candidates' own work as it appeared to be very similar to commonly used sources.

Section F: Candidate produces a more detailed description of three main hardware features of ICT systems including the ways in which components are connected (6 marks)

Very few candidates included technical details beyond that of a basic technical description that demonstrated sufficient understanding to be awarded this mark. Many candidates included a large amount of technical detail but it was often not well explained. Some candidates had included details of more than three hardware devices and only the best three could be awarded marks.

Moderators were pleased to note that centres had taken on board previous advice given and many candidates had included good descriptions of the different connections used by the various hardware included details such as the data transfer rates or the difference between analogue and digital connections and how these things affected the user. Some centres are still awarding these marks where candidates had not included this level of detail. Mentioning the connector, or a photograph of the back of a computer with the different connection labelled, on its own, is not sufficient.

Section G: Candidate produces a detailed and well-structured description of hardware features that determine overall efficiency and cost of ICT systems (6 marks)

Many candidates had included sufficient structure detail in their descriptions to be awarded both marks. Some centres are awarding marks here for the inclusion of pictures. This does not form part of the structure marks and should not be awarded as such. Some centres chose to present this section as a presentation or a brochure. This is acceptable, however, candidates must ensure that they use the structure features outlined.

Many candidates had included some detail of what features of the hardware related to its efficiency and how this affected the user. However, some centres had awarded these marks for very simple descriptions, or where there was no evidence.

It was evident that whilst carrying out research, candidates had come across websites that were from other countries and discussed cost in terms of dollars. This is not appropriate for this section and centres should discuss with candidates how to refine their searches. Simple price lists are not accepted.

Design of ICT System

Candidates are required to design and model their own ICT system. Some candidates tackled this task with clear direction and thought, understanding why they were creating the system and the benefit that it would have for the organisation they were developing it for. These candidates were successful in being able to explain why and discuss ways to develop their system. Candidates who lacked the understanding of the purpose of the system appeared to be designing something in order to 'tick boxes'. This resulted in a lack of reasoning and explanation as to 'why' they were introducing certain elements to the system. Although creating the system is important, what is fundamental to this section is the explanations and understanding as to why candidates are carrying out certain aspects of the system development. Candidates must be able to express this.

Section H: Candidate produces a basic description of the design for the ICT system, including purpose, benefits and information requirements (4 marks)

Moderators were pleased to note that many centres had taken on board the advice given last year and candidates were able to explicitly outline the purpose of the system that they were going to create. There was still evidence of candidates described the existing system in terms of being paper-based and, because of this, disorganised with a tendency to lose important records pertaining to the organisation. Many paper based systems are organised, and it is naïve of candidates to state that this is the primary reason for the introduction of an ICT system. It is disappointing that candidates are still outlining this as the purpose of a system. Candidates who had a clear idea of the purpose of the system, the job that it would do, tended to do well. Integral to this discussion will be the benefits of the system for the organisation. Many candidates presented a bullet pointed list without actually discussing why something was a benefit.

Many candidates omitted to describe what the ICT application would do which is required as part of the basic description of the ICT system.

It was encouraging to note that candidates where identifying the information requirements for the system. At a basic level this was generally carried out well.

Section I: Candidate describes in more detail the design for an ICT system, and represents (the) system in an appropriate graphic manner (5 marks)

Although some candidates had included more detail for an element of the previous section centres did not always appear to understand that here there is one mark for a detailed purpose, one mark for detailed benefits and one mark for detailed information requirements. Generally the purpose and the benefits were described in no more detail and did not demonstrate any further understanding than that of a basic description and could not be awarded these marks. Moderators were pleased to note that many candidates were able to describe the information required for the system in some detail.

There was a significant improvement in the production of the DFDs this year. Many candidates clearly demonstrated the inputs, processes and outputs of the system. In addition to that most candidates included either a decision, or identified what was a manual and what was a computer operation.

Section J: Candidate produces a very detailed description of the design for the ICT system, represents system graphically and models system using ICT (7 marks)

Very few candidates were able to provide a detailed description of the system design.

Most candidates scored well for demonstrating the modelling of the system using ICT. However, it must be stressed that candidates are required to include a description to accompany any screen shots. In addition, candidates should be careful that the screen shots are not so small that they cannot be read by the moderator.

Some centres misunderstood the requirement and confused Models system and Evidence of Operation. Candidate who designed databases were often able to provide more evidence than those who designed spreadsheets. Candidates sometimes included written or drawn design details which could not be awarded marks.

Centres are reminded that a presentation and a website are not systems, unless linked to a spreadsheet or a database. Where candidates had included designs of web pages, they could only be awarded marks where web forms were linked to a database. These did not often gain many marks considering the large amount of detail that they contained, as they did not meet many of the requirements. AQA is aware that some published resources use these as solutions to this unit. This is incorrect and centres are reminded to thoroughly check that bought resources meet the specification requirements.

Section K: Candidate describes in detail, represents graphically and models ICT system, including evidence of operation of system and commentary on the system development (8 marks)

Most candidates scored some marks for evidence of operation of system, but their work was not always very clear. This was particularly the case with solutions that required a spreadsheet. Candidates must provide evidence that the system actually works and so one or two screen shots are insufficient. Candidates should include printouts, which show the formulas used, and should indicate the results that these formulas produce. Many candidates included IF statements but did not provide evidence to show that they actually worked. As a general guideline the evidence provided should be clear to a third party whether or not that person was knowledgeable in terms of ICT. This suggests that annotation by way of explanation is essential.

Those candidates whose solution involved the use of a database generally fared better. The use of a database does, perhaps, provide more structure in that the results of searches can be clearly shown.

Few candidates had included details of changes or development ideas they had made during the implementation of the system to be awarded marks for the commentary on the development of the system. Many centres had awarded these marks incorrectly, where candidates had simply described the implementation of the original design. Sometimes incorrectly awarded for aesthetic refinements.

Section L: Candidate describes in detail and models ICT system supported by evidence of development and describes critical success factors for system (4 marks)

Few candidates were successful in identifying meaningful success factors. Most were at a trivial level, e.g. that a search should be done in 10 seconds or that it should be easy to add a new record.

A suitable example might be that the system correctly produces a set of mail-merged letters identifying those members who have failed to pay their subscriptions.

Section M: Candidate describes in detail data types and sources, processing requirements and outputs, illustrating solution with a large data set (7 marks)

Candidates often failed to provide the detail required for this section..

Thus, for M1, most candidates probably assumed that their screen shot showing field names and data types at the design stage of setting up a system in Access would be sufficient. This does not constitute "describes in detail".

Candidates must provide an explanation of the different data types used, e.g. logical where the response is Yes or No. This choice could be elaborated upon by explaining that data entry, when such a data type is used, is facilitated by ticking a box rather than typing in the data. The choice of Date and Time as opposed to giving dates as Text could be explained in terms of "greater than" searches being the equivalent of "later than" if this data type is used. Candidates are expected to explain why they have used particular data types in order to be awarded these marks..

It should be noted that those whose solution was spreadsheet based did not address the issue of "data types". This does not mean that candidates have not formatted the cells appropriately but they have neither described it nor provided suitable evidence.

It was pleasing to note that centres had taken on board the advice given last year and a number of candidates produced some very good, completed data capture forms which were accompanied with an explanation as to how they would be used to collect information for the system.

Very few provided any information for the details of processing requirements. Candidates were generally able to provide details of output requirements, but very few provided sufficient detail for the two marks.

A large data set, comprising of 25 to 30 records is not the only requirement of the data set. The data set should be suitable to test the system showing a variety of data types and would include examples, suitably highlighted, of extreme and erroneous data.

Evaluation and Testing of ICT System

Section N: Candidate provides evidence of refinements to system, including results of testing with a range of data, and describes efficiency and robustness of solution (6 marks)

Refinements refer to aesthetic improvements and some candidates met that, perhaps by adding a logo.

Many candidates provided a table outlining some tests to be carried out, but did not show the actual results of the tests. Candidates should provide a test plan and an indication of expected and actual outcomes with evidence to back it up. Simply saying that the outcome was what was expected is insufficient – there has to be evidence.

Many candidates failed to identify the data types and show how they had been formatted. It cannot be assumed that it is obvious. The formatting must be demonstrated.

Very few candidates addressed the question of efficiency, even though most of them produced a relational database. Many candidates included macros which improved the efficiency but, again, failed to describe their use. To gain a mark it would be sufficient to describe how the macro was implemented and to explain how it enables several functions to be automated by issuing a single command, e.g. by selecting the appropriate button with the mouse.

The misconception over robustness, was repeated but the better candidates realised that devices such as validation and the use of input masks contributed towards robustness even though they didn't use the correct term. A number of candidates referred to the need to guard against incorrect data entry but didn't relate this to the concept of robustness. The candidate must make this link to be awarded the marks.

Section O: Candidate produces documentation for system written in a style appropriate to the intended user (4 marks)

Many candidates produced some beautifully presented user guides that covered all aspects of the system. These were pleasing to see. Some candidates are still producing a user guide to the software rather than the system. This does not achieve any marks.

Section P: Candidate tests system against all practical initial conditions, and produces systematic documentation of results (4 marks)

Candidates did test various aspects of their systems but it was not well documented.

A sizeable number tested functions which are already built-in, e.g. data entry which did not match the data type rather than additional safeguards which they, themselves, had designed and implemented.

A number of candidates tested that a database would accept a new record. Such a test is not relevant in this context as it would be expected that the software would function correctly from this point of view.

Marks were awarded for testing that the candidate's own validation techniques functioned correctly, e.g. a range check with the corresponding error message, and for testing the operation of a macro.

In the case of a spreadsheet solution, marks were awarded for testing conditional formatting. Marks were also awarded for the use of extreme and erroneous data but in all cases the work must be clearly documented.

Many candidates failed to outline how they would improve their system as a result of the testing.

Section Q: Candidate provides evaluation of the system, including evidence from third party (5 marks)

Centres have made obvious efforts in trying to improve this area and the evaluations are now more than a description of what has been done, which is encouraging. Candidates are beginning to demonstrate that they are able to identify what they believe to be a strength or a weakness of the system and how they propose to improve it. This, on its own, however, it not sufficient. Candidates must explain why it is a strength or a weakness and justify why their suggestion would be an improvement.

This year more candidates had made reference to and responded to the third party feedback that they had collected. Centres are reminded that it is this response that achieves the marks for this section, rather than the collection of the feedback itself.

Section R: Candidate provides detailed evaluation of the system and also of user documentation including third party feedback (5 marks)

Candidates' evaluations showed the same improvements as in section Q. Often the third party feedback was omitted from this section.

Conclusion

The feedback forms to centres this year continue to be very detailed in order to assist the centres in their future development of this unit. Centres are reminded that ongoing support is available throughout the year. Centres requiring help in the interpretation of the specification or guidance on schemes of work or delivery should contact the AQA Portfolio Adviser by e-mail at aqagcseappictpa@aqa.org.uk.

Unit 3: ICT in Society

Introduction

Over the past year, AQA has provided a large amount of support to centres following disappointing candidate performance in previous examination series. In the summer term of 2005, a series of meetings was held around the country specifically aimed at centres about to commence delivery of the specification. These meetings gave detailed information on the content of the specification, and advice on its delivery and assessment. The meetings were well received by the centres that attended, with positive feedback on their usefulness. In the autumn term meetings were held which focused exclusively on Unit 3. These meetings ran in parallel with the standardisation meetings for Units 1 and 2. Attendance at the meetings was disappointing, despite all centres being invited. The meetings provided delegates with an insight into candidates' performances in previous examination series. Previous candidates' strengths and weaknesses were identified, and strategies for improving candidates' performances were suggested. A range of exemplar material was issued, with commentaries explaining where marks had been achieved by candidates. Those centres that chose not to attend were again sent materials by post so that their candidates were not disadvantaged. The *Candidate's Booklet* and *Instructions and Guidance for Teachers* clearly described stages which combine together to form each task. Working through these stages allowed candidates to produce tasks which demonstrated the depth and range of knowledge and understanding required by this Double Award specification. Centres are reminded of AQA's expectation that candidates are taught the ICT content for all five focus areas identified in Unit 3 prior to their starting the assessed tasks. Evidence from Teacher Support meetings and questions raised by centres with Portfolio Advisers suggest that a number of centres did not teach the content in sufficient depth or detail to provide their candidates with opportunities to achieve success. This assessed unit represents one-third of a double award GCSE qualification, and the teaching and study allowed should reflect this, both in the amount of time and depth of preparation. It is clearly unreasonable to expect candidates who have been given reduced teaching and study time to achieve similar marks to those who have received the 5-6 hours per week that would normally be allocated to two GCSEs.

Task One: Presentation on Entertainment and Leisure

The requirement was for candidates to focus the content of their presentation exclusively on the effects of ICT relating to Entertainment and Leisure on three identified groups. Examiners were again disappointed to note that a number of candidates had produced generic presentations which did not relate to any particular focus area. Presentations of this type were unable to achieve more than a minimal number of marks, as responses were not sufficiently detailed. A number of candidates mentioned and described groups, but then proceeded to list many different technologies, sometimes including technical detail, but not relating these technologies to the individual groups. This again resulted in only minimal marks.

For a number of centres it was clear that a significant number of presentations were quite similar, for example they related to the same groups or areas of content. Centres are reminded that candidates must produce individual presentations and should be working unaided whilst in the controlled sessions. It is totally inappropriate for the teacher to influence the content of candidates' work in any way.

It is important for candidates to realise that the presentation must be produced for a specified audience, and must focus on the effects of ICT on the three identified groups or individuals. It is not sufficient for candidates to offer generic responses that do not relate to the identified groups. The presentation is essentially an opportunity for candidates to demonstrate that they are able to use ICT knowledge and understanding that they have developed through the teacher's delivery of the content, and apply that knowledge and understanding to a new context.

Candidate describes groups and/or individuals affected by ICT systems (9 marks)

A1 Identify three groups

Most candidates attempted to identify a group or individual. The responses however were varied. The majority of candidates identified groups or individuals that used entertainment and leisure in some way. Teenagers, gamers, gym users and musicians were common. The close relation of groups evident in the 2005 examination series, which inhibited the candidate's ability for development with the advantages and disadvantages section, did not appear to be an issue this year. Some candidates failed to achieve full marks in this section through their identification of inappropriate groups. Examples such as the music industry, the community, and adults are not sufficiently specific to provide meaningful structures. Cinemas and leisure centres were often cited, but as these are buildings marks were not available. Had the candidates identified cinema customers as the group, for example, marks would have been awarded. Additionally old age pensioners were cited as a group, but many candidates then went on to say that they did not use ICT for their entertainment and leisure.

A2 Description of three groups

Examiners were please to note that many centres had taken on board the advice from previous years and many candidates had attempted to describe the groups mentioned in the above section.

A3 Relate groups to ICT use

This section was often attempted as a list of technologies and therefore did not achieve the marks. Most candidates were able to relate two of their groups to ICT use, but not all three. Some candidates failed to relate the groups to ICT at all by using generalized statements, for example "….the film makers edit film…." with no supporting statements as to the use of ICT. Candidates needed to identify the use of ICT in relation to the groups own entertainment and leisure so if a relationship was purely related to a job role marks were not available.

Candidate considers consequences of lack of access to ICT and benefits available through use of ICT (10 marks)

B1 Consequences of lack of access to ICT

This section continues to be misunderstood by candidates. Candidates generally interpret this as an opposite of a benefit, or make statements that the groups are unable to do certain things, for example 'a gym user would not be able to exercise.', or 'without an mp3 player a teenager would not be able to listen to music'. This is clearly inaccurate. This section is intended for the candidates to identify how the groups would be able to continue with their entertainment and leisure activities without the use of ICT. So, a gym user would have to take their own pulse to measure heart rate rather than relying on the machine, and a teenager would for example still be able to listen to music on other formats.

B2 Benefits of use of ICT

Most candidates did not succeed within this section as they talked in great depth about the technical make up of the ICT uses, but did not relate this back to the group and why this was a benefit to them for their entertainment and leisure. For example, a teenager being able to customise a play list from their music collection, saving having to carry around large numbers of CDs

Candidate's work is effective and appropriate to needs of audience, and is produced using fully the software features available (6 marks)

C1 Identify audience

Examiners were disappointed to note that there are still a large number of candidates who did not identify an appropriate audience. Those that did not achieve this mark either did not identify the audience at all, or highlighted unacceptably vague audiences, such as, 'investors', 'adults', 'the general public' and

'everyone'. Audiences such as 'my ICT group', or 'Film makers', or 'teenagers that download music' were quite acceptable.

C2 Format appropriate for audience
Most candidates who identified an audience could also be awarded the mark for appropriateness for audience, which was judged in terms of content, language, appearance, format, etc.

C3 Use of software features
Many candidates achieved the marks available for use of software features. Some candidates may have included a background, which could have been awarded a mark, but did not achieve that mark as their printouts were produced in black and white. There is no requirement for colour printing in this section, but backgrounds often 'disappear' when printed in monochrome due to the design of the software. A simple annotation by the candidate indicating that a background has been used is sufficient for the background mark to be awarded.

Very few candidates provided evidence of slide transitions or build effects, both of which would have earned marks. Again, a simple annotation or screen print of the transition setup window is sufficient for the mark to be awarded.

Candidate work includes evidence of use of ICT to search for and organise information (6 marks)

D1 Use of ICT to search for information
Most candidates achieved at least 1 mark for providing evidence that they had used ICT to search for information. The most common approach to this criterion was the use of an Internet search engine, with appropriate search criteria included, which is quite acceptable. Examiners were pleased to note that the majority of candidates who provided evidence for this section had used appropriate search criteria.

Higher-level candidates achieved more marks through appropriate selection of some of the hyperlinks generated by the search and relating that to the content of the presentation. Candidates who included a screen shot of a search engine without any search criteria did not achieve marks.

There are still a large number of candidates who did not attempt this section.

D2 Use of ICT to organise information
Most candidates achieved marks for use of ICT to organise information through their use of bulleted items and a flow/spider diagram or a table within the presentation. Examiners are pleased to note that this has improved from previous sessions. Candidates who had pasted graphs from other sources into their presentation could not be awarded D2 organisation marks, but were often rewarded with C3 use of software marks, for demonstrating the skill of insertion of an object. The use of organisation methods in the speakers' notes would only be awarded for bullet points, as the insertion of a graph on speaker notes would not aid organisation in a presentation.

Candidate demonstrates depth of knowledge of effects of ICT developments on the chosen groups and/or individuals (5 marks)

E1 Depth of knowledge
This criterion is intended primarily to identify higher-level candidates and to provide them with an opportunity to demonstrate their extensive knowledge of the subject. Examiners were disappointed to note that marks were awarded to very few candidates for this criterion. A number of candidates simply inserted large sections copied verbatim from websites or other published sources, which could not be awarded marks as it was not the candidate's own work. Many candidates provided depth of knowledge of the technical aspects of some ICT developments, for example extensive technical descriptions of on-line gaming was common. The language used often suggested that these were copied from published sources

and that the candidate did not understand what had been written. Usually technical details such as this did not relate to the effects of the developments on the identified groups, and so could not be awarded marks.

Candidate makes informed suggestions how ICT developments will affect chosen groups and/or individuals, based on knowledge of effects of ICT developments (7 marks)

F1 Basic details of future effects on each of the three groups

This criterion is aimed primarily at more able candidates as it requires them to interpret the information they have already researched and project that into the future to make realistic predictions. This is a high-level skill and weaker candidates will find it extremely challenging. Candidates who do not have sufficient knowledge of the effects of ICT developments on their groups will have great difficulty in meeting this criterion. A large number of candidates were unable to achieve marks within this section as they did not relate the future effect to the group. Most candidates made superficial statements regarding technologies being 'better' and 'faster', which is not sufficient for this section.

F2 Detailed/contextualised/justified details of future effects

This section requires candidates to develop the discussion started in F1. Few candidates succeeded in demonstrating an understanding of the future effects on the groups they were reviewing.

Candidate evaluates own work and details validated sources of information. Candidate recognises and explores ethical and moral implications of access, or lack of access, to ICT (9 marks)

G1 Evaluation of work

Examiners were pleased to note that the majority of candidates attempted to evaluate their work. Evaluation of one's own work is a skill which most candidates, even those working at a higher level, find particularly challenging. This was evident here. Candidates are expected to be able to outline a strength, weakness and a possible improvement to their presentation in relation to the identified audience. Most candidates however described what they did to create their presentation which does not gain marks unless linked back to suitability to the audience.

G2 Sources of information

Most candidates identified some sources of information which could be awarded marks. A few candidates still included sources such as 'the Internet' or 'the ICT text book', which could not be credited as full names and details of books, and addresses of specific websites are required. Some candidates simply listed a vast number of websites that appeared to be the output from a search engine, and in many cases it was clear that these sources had not been used, or even considered. Candidates commonly named Internet search engines as sources. Centres are reminded that such websites are content free, and are merely tools to identify other sites, and so cannot be considered as sources.

Some candidates produced a general source list and used it for all three tasks. Without specific identification of where these sources were used in all three tasks marks were only awarded once.

G3 One source validated

The majority of candidates did not attempt to check whether a source of information they had used was accurate. Those who did attempt this section often did not provide sufficient detail. Many candidates made claims such as 'I checked the information with other websites and it was the same', without identifying the information or the other sites, and so could not be awarded marks. Similarly, candidates who claimed 'I checked everything with my teacher and he said it was OK' could not be awarded marks. It was clear in the vast majority of scripts, however, that candidates had little idea of what was required to validate sources, and centres are encouraged to develop this area, which is also a feature of Task Two and Task Three, as part of their delivery of the specification.

G4 Ethical and moral implications
The candidates that were successful within this area were able to demonstrate an understanding of how ICT has provided some moral dilemmas within entertainment and leisure. Violence being linked to more 'realistic' computer game play was a popular area for discussion. Whilst marks can be awarded for discussions related to moral and ethical issues outside of links to any of the groups being discussed, all points raised must link into the context of entertainment and leisure, examiners were disappointed to see that many candidates' responses were of the 'it is wrong that people in Africa are poor….' type. This discussion was not linked to ICT and entertainment and leisure and therefore not awarded any marks.

Task Two: Report on Personal Communications

Whereas the presentation focuses on the effects of ICT on identified types of groups or individuals, the report is concerned primarily with the available technology. The requirement is for candidates to focus exclusively on Personal Communications, and to relate the content of their report to that area. Many candidates produced generic reports that were not sufficiently focused on the prescribed area, and so they were unable to achieve the full range of marks. Higher-level marks for development and predictions were still only achieved by a minority of the more able candidates. Some candidates appeared to be adopting a 'minimalist' approach, sticking rigidly to the mark scheme wording, often trying to respond in a single sentence. Candidates who simply wrote unrelated sentences in response to each mark criterion, rather than expanding on the task list of requirements, missed out on achieving many of the marks for detail. Candidates who used the marking criteria as side headings in their report often produced more structured evidence that included much more detail.

Candidate produces a basic description of three technologies available to access and exchange information and carry out transactions (8 marks)

H1 Identify three technologies
The vast majority of candidates identified three technologies, with mobile phones, e-mail and instant messaging being amongst the most popular technologies listed. Some candidates lost marks by including technologies that were not relevant to Personal Communications, often using those technologies that had been identified for Task One or those relating to the focus area from the previous year's examination. It was disappointing to find that some candidates failed to achieve marks in this section because they used the brand names of the technology as opposed to the technology itself.

H2 Basic description of three technologies
The majority of candidates were able to describe at least one of their technologies. When candidates were not awarded marks for their descriptions this was mainly due to their responses not demonstrating any significant degree of technical knowledge or understanding. Examples of this were a candidate who discussed instant messaging, but did not mention the requirement for computers, or a candidate who discussed e-mail, but did not include reference to a correspondence between two computers by way of the Internet. Again, as in the descriptions of the groups or individuals for the presentation, it appears that candidates assumed that such items were commonplace and did not require a description.

H3 More details on one or more of the technologies
Unlike last year, this section was poorly answered. Candidates tended to discuss technology uses rather than providing any technical details.

More detailed description, including main purposes of technologies available, giving advantages and disadvantages, using ICT to search, select and organise information (8 marks)

I1 Purposes of two technologies
The majority of candidates were unable to identify the purpose of the technology being discussed, rather a list of its uses were outlined. Many candidates referred to 'the main purpose is to communicate…'. As

the focus area was related to personal communications this terminology was not accepted. Candidates who were successful within this section identified the type of communication, for example 'the main purpose of a mobile phone is so you can talk to other people while you are out and about…'.

I2 Advantages of two technologies

These responses were often generic and were often bulleted lists. The main criterion asks for a detailed description, which appeared to have been over-looked by many candidates. The advantages and the disadvantages section produced minimalist responses from many candidates. Also candidates often overlooked the personal communications aspect of the task and gave general comments. Unless the commentary was linked into the context of the report on personal communications marks were not given.

I3 Disadvantages of two technologies

The disadvantages highlighted by candidates were often related to business and organisations (the focus area in 2005), rather than personal communications. Again, many candidates produced a simplistic list with no explanation or reasoning.

I4 Use of ICT to search or select information

Candidates were again required to search for, select and organise information, as in the presentation. The single mark available for searching for or selecting information was achieved by most candidates mainly through evidence of searching rather than selecting. The comments made in this section in Task One (the presentation) are also relevant here.

I5 Use of ICT to organise information

The examiners were pleased to note that the majority of candidates could be credited with the organisation mark this year. The main organisational feature used was a table, often as part of the advantages and disadvantages section. Candidates who included a table as part of the sources were not awarded marks here, nor were marks awarded for graphs or charts that had been pasted in from a published source.

Candidate identifies trends over time based on detailed descriptions of purposes, advantages and disadvantages (6 marks)

J1 Identify three trends

This criterion is an extension of the previous section, and is intended to provide candidates with the opportunity to demonstrate a higher level of understanding by identifying trends through the past, present and future based on the evidence they have accumulated in their research. Most candidates were able to identify at least one trend and describe it in simplistic terms, although responses were very often bullet-pointed sentences rather than in-depth discussions. Candidates often talked about mobile phones reducing in size over the years, but did not offer any explanation as to why, or details of the consequences or benefits of that trend. Responses often appeared to be guesswork rather than developments of information researched. In many cases, responses were simply a repeat of information previously included.

J2 More detail of trends

Due to the previous section being poorly answered, few marks were able to be awarded for this section. To achieve marks in this section the trend identified in J1 needed to relate to the context of personal communication. For example, in relation to instant messaging, how will the wider penetration of webcams, and the improvements in this technology, improve personal communication over the internet.

Candidate produces well-structured description, including List of Sources of information, with each source evaluated and validated (8 marks)

K1 Well-structured report

Most candidates were able to achieve at least two of the three marks available for the structure of the report through the use of sub-headings, appropriate paragraphs, bullet points, numbering, etc. Candidates who did not achieve all three marks often wrote an introduction, but failed to produce a concluding paragraph.

K2 List of range of sources
The majority of candidates where able to list some suitable sources and reference them correctly. The comments made for this section in task one are relevant again in this case (see section G2).

K3 Sources specifically related to content of report
Many candidates made an attempt to relate the sources used to the content of the report. Some candidates, however, gave information that was too vague, such as, 'I used this book to find out about mobile phones,' rather than a more precise description.

K4 Validation of one source
Although the validation criterion was poorly attempted overall, those candidates who used the Proforma supplied, or a version of it, did achieve marks. It is helpful if candidates identify what they are validating, quoting sections from the text book or internet site used with a comparison piece. Validations stating I checked source A with source B and it was the same were not successful in gaining marks. Candidates should be encouraged to use this format for all sections in order that elements are not inadvertently omitted.

K5 Evaluation of at least one source
Examiners were pleased to note the improvement within this section on last year. The majority of candidates evaluated at least one source, discussing ease of use in finding the information required for the task. Marks were awarded for evaluations beyond the 'it was helpful', or 'it was clear' type of statements.

Task Three: Newsletter or Brochure on Legislation

This task is constant each examination series in that it always focuses on ICT legislation as detailed in the specification. Candidates are required to produce a DTP document, this year for employees of a large organisation, discussing the purposes and effects of legislation related to ICT. Marks are awarded predominantly for content rather than DTP skills, as this is assessed explicitly in Unit 1.

Examiners were disappointed to note that this task was often poorly completed by candidates. A number of candidates appeared to have started but failed to complete the brochure, possibly due to a lack of effective time management on their part. Some candidates simply produced essays on the various acts, rather than structuring them as a newsletter or brochure as required.

Many candidates did not know the correct names of the Acts and some candidates discussed irrelevant issues, such as the rules of ICT rooms in their own school or college. The important Acts are listed in the specification, although candidates may wish to include other pieces of legislation. Those candidates that did do this task well, however, produced some very impressive documents that demonstrated detailed knowledge and understanding.

Candidate produces a description of the main purposes of legislation covering working with, and using, ICT (4 marks)

L1 Simple descriptions of main purposes of four pieces of legislation
This initial section required candidates to identify and describe the purposes of the various Acts. It does not require detailed working knowledge of the contents of the Acts. Most candidates were able to describe the purpose of two or three Acts adequately, but few scored full marks.

Many candidates thought that the main purposes of the Acts were to make something 'illegal', without identifying the precise purpose. Examiners were pleased to note that when referring to the Health and Safety at Work Act, candidates primarily concentrated on the ICT issues, such as time spent looking at monitors, which achieved the marks. Candidates who discussed the purpose of an Internet code of Practice did not gain marks, as this is not legislation. Another common error was the inclusion of legislation not specific to the UK, with US legislation often sourced from the internet being used. The focus of the newsletter or brochure should be UK based legislation.

Candidate produces a more detailed description, which includes an explanation of implications for users of implementing the legislation (7 marks)

M1 More detailed descriptions of main purposes of the legislation
This criterion is an extension of L1 and requires candidates to identify the implications for users, at any level, of the Acts they are considering. These implications could be related to working practices, efficiency, costs, etc. and may be different for different types of users.

Very few candidates achieved significant marks in this criterion, largely due to their lack of detailed responses. Candidates tended to provide the most comprehensive information about the Data Protection Act, and the Computer Misuse Act, but often this was simply a list, rather than a discussion of what the implications of it are in practice.

M2 Implications for users explained
Candidates performed slightly better within this section demonstrating that they understood the implications for ICT users of the Acts. Candidates generally achieved these marks within the discussion of the Health and Safety at Work Act, the Data Protection Act and the Computer Misuse Act.

Candidate produces a detailed and well-structured description which includes details of the sources of information, and validates those as part of a detailed evaluation of the work (7 marks)

N1 Well-structured description
A number of candidates produced word processed 'essays' rather than the required newsletter or brochure, and so could not be awarded the marks for structure. Some candidates had used software templates or 'wizards', which is quite acceptable, but had selected a template which did not provide space for sufficient detail, and so marks were lost. The majority of candidates, however, were able to structure their newsletter/brochure appropriately, gaining at least one mark. Many candidates achieved the additional mark for the appropriate inclusion of a structure feature, primarily for the use of bullet points.

N2 Details of sources
Many candidates where able to list some suitable sources and reference them correctly, however this was not as well attempted as in the previous tasks (see G2 comment). Centres are advised to encourage candidates to use the proforma supplied for the criterion relating to sources of information.

N3 One source validated
Some candidates were able to validate at least one of their sources. Other issues have been discussed within the other tasks.

N4 Detailed evaluation of work
Most candidates attempted an evaluation, though many were brief and descriptive with little substance, rather than evaluative. Candidates found it difficult to justify why a particular feature was a strength or a weakness. Successful evaluations usually consisted of details of identified strengths and weaknesses, appropriateness of format, content and language to the intended user, and suggestions for possible future improvements which were justified.

Conclusion

It appears that centres have taken on board some of the advice offered by AQA at Teacher Support meetings and that given by Portfolio Advisers. Candidates appear to have grasped how to structure their assignment in order to attain marks for simplistic level skills, which is encouraging. It is disappointing, however, to note that the content level and the ability to apply their knowledge to a focus area has not shown any improvement.

Centres are strongly encouraged to take note of the comments within this report when preparing candidates for Unit 3 in future examination series.

Centres should always be prepared to seek advice or clarification from the Portfolio Adviser (aqagcseappictpa@aqa.org.uk), or from ICT Subject Support at AQA (ict-subjects@aqa.org.uk).

Mark Range and Award of Grades

Unit	Maximum Mark (Raw)	Maximum Mark (Scaled)	Mean Mark (Scaled)	Standard Deviation (Scaled)
Unit 1 - ICT Tools and Applications	100	100	46.8	20.8
Unit 2 - ICT in Organisations	100	100	34.0	19.3
Unit 3 - ICT in Society	100	100	28.6	12.4

For units which contain only one component, scaled marks are the same as raw marks.

Unit 1 (6678 candidates)

	Max. mark	A*	A	B	C	D	E	F	G
Scaled Boundary Mark	100	84	72	60	49	40	32	24	16
Uniform Boundary Mark	100	90	80	70	60	50	40	30	20

Unit 2 (7255 candidates)

	Max. mark	A*	A	B	C	D	E	F	G
Scaled Boundary Mark	100	84	70	56	42	35	28	21	14
Uniform Boundary Mark	100	90	80	70	60	50	40	30	20

Unit 3 (5154 candidates)

	Max. mark	A*	A	B	C	D	E	F	G
Scaled Boundary Mark	100	53	47	41	36	29	23	17	11
Uniform Boundary Mark	100	90	80	70	60	50	40	30	20

Overall (7257 candidates)

	A*	A	B	C	D	E	F	G
Cumulative %	0.6	4.0	14.0	31.8	49.9	66.5	81.1	92.3

Definitions

Boundary Mark: the minimum (scaled) mark required by a candidate to qualify for a given grade.

Mean Mark: is the sum of all candidates' marks divided by the number of candidates. In order to compare mean marks for different components, the mean mark (scaled) should be expressed as a percentage of the maximum mark (scaled).

Standard Deviation: a measure of the spread of candidates' marks. In most components, approximately two-thirds of all candidates lie in a range of plus or minus one standard deviation from the mean, and approximately 95% of all candidate lie in range of plus or minus two standard deviations from the mean. In order to compare the standard deviations for different components, the standard deviation (scaled) should be expressed as a percentage of the maximum mark (scaled).

Uniform Mark: a score on a standard scale which indicates a candidate's performance. The lowest uniform mark for grade A* is always 90% of the maximum uniform mark for the unit, similarly grade A is 80%, grade B is 70%, grade C is 60%, grade D is 50%, grade E is 40%, grade F is 30% and grade G is 20%. A candidate's total scaled mark for each unit is converted to a uniform mark and the uniform marks for the units will be added in order to determine the candidate's overall grade.