Information & Communication Technology A

Report on the Units

June 2007

CONTENTS

GCSE Information and Communication Technology A (1994/1094)

REPORTS ON THE UNITS

Report on the Examinations – June 2007

The Full Course (Specification 1994) is comprised of four units: 2357, 2358, 2359 and 2360. The Short Course (1094) consists of Units 2357 and 2358 only.

Units 2358 and 2360 are internally assessed coursework. Units 2357 and 2359 are externally assessed written papers.

General Comments on Externally assessed Units (Units 2357 and 2359)

For this specification, Centres are, once again, requested to remind their candidates that all responses must be written on the lines provided and within the marked areas. Also, the use of additional pages should be discouraged.

It is pleasing to note that for Unit 2357, in both Foundation and Higher papers, there were fewer candidates leaving questions unanswered. This, however, was not the case for Unit 2359 where there were too many candidates not attempting questions.

General Comments on Internally assessed Units (Units 2358 and 2360)

It is a requirement for both Unit 2358 (Projects 1a/1b) and 2360 (Project 2) that Centres submit a Centre Authentication Form **(Form CCS160)**, signed by its teacher/assessors, and this form should be posted to the moderator with the mark sheets **(MS1)** and, where applicable, coursework summary forms. It is also a requirement for each candidate to sign a Candidate Authentication Form indicating that the work submitted is their own. These forms should be retained at the Centre unless requested by the moderator.

There were still a number of Centres failing to send Coursework Summary Forms for Unit 2358. This delays the whole moderation process and can result in Centres results being withheld. Centres are requested to ensure that the sample requests are sent to moderators within the three-day time span required by OCR.

2357/01 (Foundation)

General Comments

The paper was fair and the candidates seemed able to answer to their ability. The majority of candidates attempted all the questions and most candidates were able to gain between 30 and 40 marks with few getting less than 20 marks. Candidates with limited knowledge were able to get a third of the marks.

In the detailed part of the report, the comment about the ability of candidates to express themselves clearly appears more than once. Candidates will have experience of many areas of ICT, but find it difficult to put their ideas and explanations on paper in a coherent manner.

Comments on Individual Questions

1)   This was answered quite well. Most candidates obtained nine or ten marks. The items in the diagrams were usually identified correctly, but not always put into the correct input/output category. In particular, the microphone was identified incorrectly.

2)   Few candidates gained both marks for this question. A majority gained the mark for "output" but very few obtained the second mark for "backing storage". A few gave examples of backing storage such as hard disks, but gained no credit for this. There was no pattern in the wrong answers.

3)   There was a mixed response to this question. Many obtained both marks, but equally, a significant number did not score at all.

4)   A large number of candidates obtained full marks for the question. The most common mistake was to transpose "flip" and "rotate".

5)   There were some good answers to this question, with many candidates obtaining two or three marks. Other candidates failed to distinguish between the top two pictures or the top and bottom one. Many answers gave excessive dangers, such as the computer blowing up or water on the keyboard causing instant death.

6) (a) The problem candidates encountered was in expressing their answer clearly. Presumably candidates had used a spell checker, but explaining its use was difficult. The common answers included checking the document for spelling errors, offering possible correct spellings and changing to the correct spellings automatically. Grammar was often mentioned. This was not penalised, but gained no credit.
    (b) Very few candidates obtained the mark for this question. Most seemed to think it followed on from the spell checking part, and stated that the text now had no errors in it. Even those who knew the correct answer had great difficulty in describing what happened with justification.
    (c) This was answered well with most candidates obtaining all three marks. There were a great number of acceptable answers and candidates benefited from this.

7)   Most candidates gained a mark for mentioning use of anti-virus software, but many did not appreciate it was aimed at preventing viruses from getting on to the computer, and not removing viruses once they were there. There were still many vague answers along the lines of "don't look at stuff you shouldn't".

8) (a) Most candidates obtained the mark for this question.

(b) Most candidates obtained the mark for this question. Some appreciated that adding up figures was involved, but gained no credit if they added up the contents of the wrong cells.

(c) This was the worst-answered part of this question. Candidates still do not appreciate that checking the transfer of data is verification.

(d) This was answered quite well with a significant number of candidates obtaining at least half marks. A significant number, however, left their answer as "follow the steps of a wizard" and did not appreciate that these steps formed the basis of the answer. Another group did not indicate that they were using ICT at all and just described what the graph would look like. They gained no credit for this.

9) (a) Problems were caused by the candidates' poor quality of English and failing to express themselves properly. At the simplest level, the basic answers were "a picture that already existed, such as from a magazine", "a picture that would be taken by Carla", "simple pictures, such as cartoons, which already existed on the computer", and "picture that Carla could create herself on the computer". Candidates found it very difficult to separate one situation from the others.

(b) Few candidates gained both marks. Answers were based more around what you should use a word processor for, than answering the question. Candidates often gave an answer along the lines of "a desktop publishing package has more things than a word processor" without saying what they were.

10) Most candidates obtained some marks, usually for the first three blanks. The repeat construction caused the most problems and only a few gained the full marks for this part.

11) Candidates have experience of networks, but most had difficulty in expressing themselves clearly and relating this to answering the question. As a result, few gained full marks, but many obtained one, usually based around the fact that it was easier to monitor what pupils were doing. The fact that there was only one printer in a room gained no credit – candidates had to make the point that it was accessible to all computers on the network.

12) (a) Most candidates gained three or four marks for this question.

(b) Most candidates gained at least one mark for this question. Many sent the email many times to different recipients and gained no credit. It was necessary to put the many addresses into the "To send" box to gain the mark. Candidates who used "Send to all" as an answer needed to indicate that "all" referred to a contact list or address book in order to gain credit for their answer.

(c) Few candidates obtained full marks. Many concentrated on one or two points such as "email was received quicker". Some candidates were vague in their "quicker" answer, implying that it was quicker to type the letter rather than write it by hand. Other answers which gained credit involved use of attachments and comparison of costs, although those candidates who said email was free were not awarded the mark. Those candidates who described advantages of word processing, not relating it to email, did not gain credit.

2357/02 (Higher)

General Comments

The paper produced the intended discrimination with various questions identifying higher grade candidates but allowing all candidates the opportunity to access all of the questions. The use of a graded response mark scheme for the final question produced the required discrimination allowing the question to be accessible to weaker candidates while giving better candidates the opportunity to score high marks.

Candidates appeared to have been entered for the correct tier as there were very few poor marks and few candidates left questions unanswered.

There was once again evidence that candidates failed to score marks because they had not been fully prepared for the theoretical aspects of work undertaken for their coursework. Centres are again reminded that candidates should be taught the theoretical specification content requirements as well as learning the use of the application tools.

1) (a) This question was well answered by many candidates but a significant number are still confusing verification with validation.

   (b) Most candidates scored three or more marks, producing good answers.

2) (a) Responses to this question were disappointing. Very few candidates achieved full marks. One word answers lead to candidates often repeating the answer for more than one method. It should be noted that responses that did not clearly identify the type of picture could not gain any credit. An example of this was when a candidate responded with 'Photograph' for Digital camera.

   (b) Few candidates were able to score full marks on this question, with many candidates ignoring the fact that a word processor has features such as templates, frames and columns and responded 'Has frames' etc. Some better responses described the ability to layer frames and described the ability to use irregular frames and use wrapping. Features common to applications such as picture editing were not given credit. Centres are advised that the ICT A specification requires that candidates are aware of the differences between, and the features of, various application software packages.

3   This question was well answered by most candidates and many were able to gain full marks. It was pleasing to see more candidates showed an understanding of the REPEAT command than in previous examination series. .

4   A question that has appeared in previous examination series should have been well answered but was not. There are too many vague answers and many referring to the Internet only.

5 (a) This question was well answered, with few candidates failing to score three or four marks.
   (b) This question was well answered by most candidates but a significant number misunderstood the question and stated that the email could be either copy/pasted and readdressed or forwarded to another recipient.
   (c) Despite this question having appeared in one form or another in previous examination series, many candidates failed to score half of the available marks. Common errors were "quicker" or "cheaper" with no further comment – one word responses such as these do not gain credit.

6   This question was not well answered. Many candidates gave vague or general answers that did not focus upon the "information" as stated in the question. However, a significant number of candidates produced responses that showed a good understanding of the issues involved mentioning such problems as the inability to be certain of the origin of the information, the need to be intellectually critical of the vast quantity of information available and to be wary of extreme viewpoints and to be aware of the presence of reliable, well-known sources of information – as well as learning to be able to distinguish between them.

7   This question was quite well answered by many candidates who demonstrated that they understood the fundamental differences in the data. A number of candidates, however, merely stated that "telephones are analogue but computers are digital" – which did not answer the question.

8   This question was well answered but few candidates scored full marks. Most candidates were aware of copyright issues but few could adequately relate this to software. Many candidates missed the point of the requirement for "permission" and described the process of copying software which implies a misunderstanding of the term 'software copyright'.

9   This question was badly answered with many candidates ignoring the context of the question and wrote about what a spreadsheet could be used for. Some candidates went into detail by describing how to set up a spreadsheet to be used as a model; this was not given any credit. Some repeated the second sentence of the question. Good answers identified that the model would have variables that could be changed, the outcome of these changes could be seen and then gave an example e.g. 'what if' the weight of traffic changes.

10   The question was well answered by many candidates who read the question and answered accordingly. This question was about "advertising" on the Internet and not, as many candidates' responses seemed to suggest, about shopping on the Internet and consequently these failed to score many marks. Many answers described the actual advertisement and the process of placing it on the Internet. Many failed to realise that there are other ways of advertising but those that did scored marks. However, many assumed that the only other method of advertising was a poster.

11   This question focussed on the correct use of equipment but produced many "stock" answers that included "regular breaks", not "drinking in the room", etc which did not answer the question. Good responses identified the health problem and described how specific equipment could reduce the problem. A list of equipment or a list of health problems gained no merit as the question asked candidates to state a health problem and how to mitigate it by correctly using equipment.

12   Most candidates scored marks on this question managing to state a number of methods but the best candidates stated a method and explained how this would be used to stop unauthorised access to data, or at least make it difficult to do so.

2359/01 (Foundation)

General Comments

The majority of candidates completed the whole of the paper. The multiple choice questions were generally well answered with only one or two common mistakes which are detailed below.

There was no evidence that candidates were short of time to complete the paper.

Comments on Individual Questions

1   Most candidates scored two marks. Occasionally 'Zip Drive' was not chosen.

2   'Painting package' and 'CAD package' were sometimes confused.

3   This question was well answered with most candidates gaining five marks. There were a few responses where 'account number' and 'MICR' were in the wrong place. There were also some candidates who confused 'MICR' with 'EFT'.

4   This question was generally well answered.

5   This question was not particularly well answered. 'Theatre seat reservation systems' and 'Booking an aeroplane ticket' were common selections. A small minority of candidates selected three items rather than two.

6   Most candidates got three or four marks on this question. Where only three marks were obtained 'OMR' had usually been chosen.

7   Generally three to five marks were awarded for this question. Many candidates believed that LAN was 'More vulnerable to hackers' and the 'The internet is an example of this type of network'.

8   This was fairly well answered with 'star' being the most popular answer. Some answers involved LAN and WAN.

9 (a)   This question was well answered.

9 (b)   Some candidates had obviously spent time on this questions and gained high marks. The best responses usually involved drop-down menus, compulsory fields, an indication of delimiters and formatting as well as a clear layout. A few candidates produced posters and failed to notice that an 'input' screen was required.

9 (c)   Validation is not understood by many candidates in spite of its frequent appearance on the paper. Validation checks were usually described rather than named. Sometimes verification checks were described.

10   Few candidates scored high marks. Answers were usually limited to passwords/user names, firewalls and sometimes encryption. More often than not the rest on the answer amounted to repeating what was in the question – 'to prevent unauthorised access to data'.

11   This question was very poorly answered. Only a few candidates knew it referred to 'direct changeover'. Many referred to loss of data, introduction of viruses or 'staff won't know how to use the system'.

12 (a)   This question was not particularly well answered. Some candidates had the concept of mail merge but failed to translate this into marks because of very vague and generalised answers. There was sometimes the misapprehension that it was about emailing. Some candidates used brand names such as "Word" or "Access" when describing how the mail merge would be completed.

12 (b)   Very vague answers were often given. Many candidates did not appreciate that the letters could be personalised. Some candidates simply gave one word answers: 'easier', 'faster' or 'cheaper'.

13   'Hacking' and 'sending viruses' were the most popular responses. Answers which gained no credit often related to copyright and downloading of music and films. There were some references to the Data Protection Act, and to accessing pornographic websites.

14 (a)   This question was usually very well answered.

14 (b)   Some candidates referred to how the layout of the letter could have been improved (e.g. change font). Many answers involved the use of spell and grammar check and not the required answers.

2359/02 (Higher)

The paper enabled the majority of candidates to answer all the questions. However, the quality of response from candidates was not high as there appeared to be gaps in candidates' knowledge. This may to be due to their lack of preparedness for the examination as many questions were answered superficially. Candidates showed little understanding of the technical terms required by this section of the specification. Candidates did not appear to know the names of validation checks or types of verification other than a basic understanding of visual checking. They showed lack of knowledge of mail merge processes other than the use of wizards with certain software packages. Once again the inability to cope with questions on expert systems was evident.

There was, as noted above, evidence that candidates failed to score marks because they had not been fully prepared for the theoretical aspects of work undertaken for their coursework. Centres are again reminded that candidates should be taught the theoretical specification content requirements as well as learning the use of the application tools.

General Comments

1)   This question was well answered by many candidates but a number gave answers such as LAN or WAN.

2)   (a)   Many candidates were able to score highly on this question although many failed to recognise the need for a submit button.

     (b)   Candidates were unable to name validation checks but were able to score marks for describing them.

3   This question enabled most candidates to score marks but many candidates were unable to elaborate on their answers.

4   (a)   Candidates did not seem to know this. Many left it blank. It appears not to be taught.

     (b)   As a follow on from (a) it was poorly answered. Many candidates thought that data would be lost in the changeover or that staff would not understand the new system.

5   (a)   This question was poorly answered. It appeared that few candidates had come across the term and there was a distinct lack of use of the appropriate technical terms.

     (b)   This question gained marks for candidates who, although failing to understand what an expert system is, were able to deduce from the question the types of answers required.

6   (a)   A varied response to this question from candidates – surprisingly poorly answered considering the ease of the question and the range of marks available. Although it was clear that most had used the mail merge feature in their studies few could describe the step by step process and include technical vocabulary to give clarity to their descriptions. Some candidates clearly had difficulties when it came to detailing a process. Most scored no more than two marks demonstrating a basic understanding of the mail merge process.

     (b)   Most candidates scored one mark by referring to the increased speed of producing standard letters but only a few candidates understood that a mail merge letter was effectively personalised.

7   Candidates managed to achieve at least one mark by responding with answers referring to hacking. A large number confused this with answers relating to copyright.

8   (a)   This question was well answered.

    (b)   Candidates, in the main, rarely scored more than one mark failing to realise the importance of the comparison process.

9   This question elicited the best responses but there was little evidence of very high scoring. Many candidates gained more than two marks.

10   The question was quite well answered by many candidates. However, few candidates were able to expand on their initial statements. It was common for candidates to gain single marks for each point made but rarely gained two for each one as there was so little expansion.

11   This question enabled candidates to gain some marks but again, high scoring was achieved by few candidates. Candidates sometimes focussed on what video-conferencing is rather than its benefits and drawbacks.

12   This question was poorly answered. Most candidates scored one or two marks for focussing on sound being of benefit to visually impaired students and/or images helping the hearing impaired. Few candidates were able to go into any depth about how particular features would help either group.

2358 (Short Course Projects 1a/1b)

General Comments

It was noted by moderators that where Centres failed to apply the assessment specification accurately it was mainly in the marking of Project 1a. It is still the case that too few Centres are encouraging their candidates to annotate their work. There was also an increase in the number of Centres failing to indicate where in the work the evidence for meeting criteria could be found.

Centres appear to not be taking advantage of the Teacher's Guide published by OCR and available via the OCR website. This guide contains good advice which, if followed, would remove many of the problems apparently experienced by Centres when assessing the work. However, it should be read in conjunction with the specification. The notes for guidance in the specification contain useful advice.

As in previous examination series, the lack of internal moderation in a minority of Centres caused problems during the moderation process. Centres are reminded that they are required to carry out internal moderation of marking. Moderators are required to return the work to Centres and ask them to re-mark the work if internal moderation is not carried out and this may well delay publication of the results to the Centre.

Project 1a

As the criteria are now well-established, it seemed surprising that a number of Centres failed to understand the need for candidates to meet all the criteria in a given mark range in Project 1a. This has always been the case in the assessment of Project 1b and so should have been fully understood by Centres. There were still some Centres who marked against the new criteria but had appeared to prepare their candidates using the old criteria.

Centres are reminded that for marks above 10, candidates must produce a significant piece of work. This means that a booklet or website of at least 8 pages, or a presentation of at least 8 slides is required as a minimum. Some Centres still submitted a business-oriented task of e.g. business card, letterheads etc. This is not a significant piece of work. Neither is the production of a poster.

It was quite evident that some Centres are still not heeding the advice given in the published Teacher's Guide. Under the scheme of assessment, candidates must not be awarded even the lowest ranges of marks if they fail to include information from non-IT sources and at least one IT source in their final document. Centres are reminded that evidence of collecting two different non-IT sources and then using information from at least one by copying or scanning is required at the lowest mark levels. The evidence should be in the form of the original but where this is not possible, such as using books, candidates must include photocopies.

The requirement for number is also mandatory at all but the very lowest mark level. Candidates cannot base their use of number on graphs if they do not show the table of numbers which their graph is derived. Some candidates copied and pasted graphs from their sources but these appeared to be images. Any confusion is easily removed if the original numbers are included and the method of graph production is demonstrated.

Candidates appeared to have difficulty with the concept of purpose. As it mentions in the Teacher's Guide, the purpose should include the identification of an audience and a description of the information to be communicated. For marks higher than seven, candidates must relate the development of the work to this audience. As it says in the Teacher's Guide, development must be evidenced by at least printouts of three different stages of the development. Where candidates are producing a significant piece of work there will obviously be more stages of development. The audience must be referred to at each stage of development. The purpose of

the work is the reason for producing the documents and should not be construed as the task itself.

The inclusion of a purpose is a requirement of even the lower mark ranges and failure to provide a reasonable purpose could lead to a large drop in marks. Project 1a is similar to project 1b in as much as all criteria must be met in a mark range for that mark to be awarded. Most candidates who were successful concentrated on identifying an audience, usually a specific age group. The purpose of the work being to attract that type of audience. A number of candidates specified an audience which was far too wide ranging to be categorised when describing the development, phrases such as "the picture/work was eye-catching" or "professional looking" would apply to the vast majority of publications and so cannot count in this regard.

Many candidates still failed to provide evidence that they had collected, and then incorporated into their final products, information from non-IT sources. It is not sufficient to just collect information from non-IT sources. Candidates must take this information and incorporate it into their work, i.e. the final product. Some Centres mistakenly assume that the reference in the specification and in the Teacher's Guide to a 'piece of work' includes their documentation. It does not. The piece of work referred to is the brochure or presentation they are producing for their end product.

One other major failing was, the lack of evidence of number in the work of many candidates. As has been stated in previous reports, the rationale behind the use of text, images and number is that in any given document the formatting of each of these is done differently. There is a requirement that candidates are aware that numbers are formatted differently to the other two forms of information. One example is the use of currency, where each one would have a currency symbol in front of it and each number would have the decimal point in line with its predecessor etc. An awareness, by the candidates of the need for the different formatting requirements of numbers is all that is required. A number of candidates are still using phone numbers as their evidence of number. Telephone numbers do not meet the criterion for any skill which mentions number. Numbers are those which can, or have been, mathematically manipulated. Where data types such as dates or times are used they cannot have dashes or the word to (as in opening times) as this makes them text. Graphs can be construed as images unless the manner in which they are produced is documented fully. Again, work lacking evidence of a list of numbers leads to many marks being lost under this assessment.

Many Centres failed to realise that for this assessment, information has to be produced from a minimum of two non-IT sources which must be included in their final booklet or slide show for all but the lowest mark range. For marks above 13, information from a minimum of two different IT sources must be included in the booklet or presentation. The Internet is considered to be only one IT source. It is not sufficient for candidates to look at the Internet or CD ROMs, or in magazines, books and newspapers for 'research' purposes. They must actually incorporate a minimum of the four pieces of information (one from each source) into their final booklet/presentation and at least one piece should be numeric, at least one should be text and at least one should be an image.

Project 1b

A number of Centres are still not adhering to the requirements of the specification that in order for a candidate to be awarded a mark within a given mark range they must match all the criteria within that mark range.

Comments on individual strands

Data Handling

A number of Centres seem to ignore the requirement that, in order for a candidate to be awarded a mark within a given mark range; they must meet all the criteria within that mark range.

There were a small number of Centres awarding marks despite there being little evidence of searches performed on the database used. The evidence required for this is a printout of the matching records.

For marks of 8 and above, candidates must produce a manually completed data capture form. This was confused by some Centres as being equivalent to the data entry form as used in packages like Microsoft Access, for example. This is not the case. A data capture form is a grid-like table with field names as headings, and data copied manually from the collected sources for marks of 14 to 16 upwards, or just completed with known data for 8-13 marks. Candidates showing screen dumps of data being entered into data entry forms on the computer do not fulfil this requirement.

For 14 to 16 marks to be awarded, candidates must provide evidence of using a range of sources. They must also give reasons for selecting the data for inclusion in the database. The Teacher's Guide for the specification explains in detail what is required. Reasons for choosing fields cannot be based on the proposition that these were what were required by a 'user'. It can be a list of possible questions (queries) which the database is required to answer which the candidate uses to deduce the fields required to answer such questions. It could be a survey of a number of possible users as to what fields would be needed and then deducing from the response what fields are required.

For marks above 16, candidates must use Boolean operands in their searches. The criterion refers to complex searches and so requires a minimum of two complex searches. A minimum of two different Boolean operands must be used.
There still seems to be some confusion over the requirements for validation. Proof that validation has worked is required. This could be done by producing screen dumps showing error messages being produced as a result of the candidates setting up their own routines. The entry of text into a numeric field does not count; neither does designing field types which limit data entry. The criterion requires the candidates to write their own validation routines.

For marks above 19, candidates must describe their choice of software in terms of the features required to solve the problem and compare it with an alternative piece of software. Many candidates lose marks because they give a list of features which are not required by the solution or fail to give a list of features required by the solution or, indeed, give a list of features required by the solution but are equally available in the package they are rejecting.

For marks in the highest ranges, candidates are expected to give reasons why they have chosen the fields included in their database but left out others. They will also need to give reasons for their choice of field types and explain their choice of field lengths.

For the highest mark range, the required output must be stated. This must be in terms of the format of the output as well. As one of the criteria is to comment on how easy it was to produce tables and graphs candidates must obviously stipulate these as being part of the required output and then produce this output. This must be done at the outset. This will usually be the output from a list of queries which the candidate surmises they will use to test their database. Candidates must relate all the reasons for the choice of all the various features listed in the 26 to 28 mark range to this required output.

Modelling

Predictions are required at every mark range above 7. Some Centres take the meaning of simple to be just indicating a general increase or decrease in variables. It is expected that even at low levels candidates will quantify these changes to a degree. For marks above 19 candidates are expected to make more complex predictions. The requirement for 'Use the software to provide the answers required to solve the problem' is that predictions are made.

More Centres are now aware of the requirements to meet the criterion of "complex model". Candidates are required to compare the model with a real life situation in order to secure credit. Some candidates failed to design a complex model but were still awarded marks above 19. It is not sufficient to make a design and then go on to create a complex model; the original design should be complex.

A number of Centres fail to understand the requirement for justifying the choice of software. Candidates should define their problem, and then produce a list of software features required to solve the problem, followed by a description of their choice of software and how well it meets the required features. The description of how they created their spreadsheet should contain a number of screenshots illustrating how these features were used.

Measuring

A number of Centres submitted work for this strand but failed to comply with the requirements of the specification. Many used one type of sensor when the specification requires a minimum of two different types of sensor. Some Centres regard this strand as an 'easy option' but it should be noted that this strand requires the same level of detail in the documentation as any other strand.

Control

This strand still causes difficulties in some Centres. The advice in the Teacher's Guide identifies the need for equipment to be set up by an individual, not a team, including the setting up of two different types of sensor – not contact switches. These must all be connected by the candidate to a computer through some form of interface. The system created must be physical. Simulations or mimics are not acceptable for marks above 19. The device created must be of their own design not one that has come in kit form which tells the candidate what to do. The creation of this system must be evidenced and photographs of the stages of creation are the best way of doing this. Candidates must realise that they have to annotate their programs showing how they have used precision and what would have happened if they had not. Evaluations which refer to their use of precision are not the same thing. Finally, feedback is defined as the output of a system affecting the input of a system. It is not considered to be the reaction to inputs.

2360 Project 2

General Comments

There appears to be little evidence in the work from many Centres that tasks set for the candidates offer differentiation. Centres are reminded that unnecessarily complex projects or projects that produce an excessive volume of work should be avoided. Moderators saw projects with close to 200 pages. It is not appropriate to state exactly how many pages a project should be but this amount appears excessive.

The distribution of marks gained by candidates indicates that lower ability candidates are working hard at trying to achieve the higher marks in the first two or three sections and, consequently, do not manage to produce work that meets the criteria in later sections. Centres are advised to encourage weaker candidates not to spend too long struggling with analysis and/or design, but to produce a basic system, which they can test and evaluate. In this manner, they will possibly gain more marks and a sense of achievement in having produced a finished project, which could be improved if the time is available.

There remains a significant number of Centres who do not adequately complete the front cover sheet. Moderators noted the non-completion of candidate names and/or candidate numbers and this caused extra work during the moderation process. Centre-generated coversheets are acceptable and some excellent examples were seen; these along with completed OCR coversheets allowed the moderator to use the page referencing supplied by the marker to find the required evidence quickly and accurately.

Comments on individual sections

Analysis: The fundamental requirements of this module are shown on pages 73 and 76 of the specification where it states "Candidates are required to submit coursework which addresses a realistic problem" and "Candidates must intend to produce a system for others to use". A good analysis of the existing problem is the key to doing this coursework correctly yet evidence seen at moderation would suggest that this section is done as an afterthought and not as a pre-requisite. This was demonstrated by the large number of candidates who started their documentation with "I am going to create a database for…" demonstrating that they have already decided what application package they intended to use and needed to think of a way of showing their ability to use it. The best candidates utilised a real problem, often based around the workplace of a family member or friend. The vast majority of candidates seen appeared to have decided on the user's requirements before collecting information from them. It also appeared that some candidates themselves decided what the user should require. There were a significant number who had presented perfectly valid and well thought out user requirements but then failed to incorporate them into the design, which must call into question whether the design was appropriate for its purpose. In a small number of cases, Centres appeared to credit candidates with defining the problem they were going to work on despite it being clear that most of the evidence was a rewording or restating of the task briefs given to the candidates – evidence was not much more than a "I am going to choose …"

The **collection of information** from potential users again posed problems. There were many candidates completing their own questionnaires or having them filled in by classmates. Even those who did collect real information often failed to get a signature, state who had filled in the questionnaire, or failed to provide the expected supporting evidence such as letters or emails supporting the questionnaire or arranging interview appointments. In a number of cases, the actual questions asked were not useful or relevant and the responses gathered could not be accepted as giving the candidate any information about the present system. Markers should be looking carefully at the questions and awarding marks only for ones that would actually do the required job.

Many candidates appeared not to understand the difference between the system specification expected for A3 and that required for D4. Justification of the choice of software was poor; few candidates properly researched the features of the alternatives they suggested, so ended up with incorrect statements, such as "Excel cannot include data validation", or "Star Office cannot do queries". Once again, many candidates were given credit for comparing different versions of Microsoft Office or including comments about different operating systems, virus checking software, etc, none which had a direct relationship to the task in hand i.e. a data handling system requires comments and comparisons of the features offered and the features required based on different specific data handling packages. At the lower end of the mark range for this section, candidates are expected to comment on a number of scenarios that the present system can cope with and to which the new system will provide solutions; this is vital later for thorough testing.

Design: Many candidates produced alternative designs which were not appropriate e.g. data structures with four fields against the alternative with ten or more, or field lengths which are deliberately inappropriate so as to change them later. For any marks to be awarded in D1, D2 or D3, there must be evidence of at least one design for every part of the system being developed. There are still Centres permitting input and output designs to be done in the software chosen for the solution. In some cases the design appears to have been produced post-implementation. Many candidates only produce designs for one output format; the Notes for Guidance in the specification state that, even for a single mark, more than one form must be considered.

Implementation is usually the section which is well done. However, the quality of the descriptions that candidates included were often poor, with pages each with two screenshots, each having a single sentence underneath stating e.g. "Then I clicked here and this came up". Where changes are carried out, candidates should be encouraged to document them explicitly as they are often difficult for a moderator to locate. The fourth mark of I3 can also be difficult to evidence; some Centres gave credit for candidates justifying their choice of software (which is D4), rather than justifying the features of the software that they used. Combining software features gave rise to the usual problems, such as two mailmerges without a different purpose or different datasets, or the lack of evidence that the data had actually been transferred. There was, in some cases, a return of the erroneous acceptance of copy and paste, despite it being stated, on a number of occasions, as unacceptable.

Testing: To meet the criterion for "thorough testing" there should be evidence of the candidate referring back to their work in the analysis section (with particular reference to the Inputs, Processing and Outputs commented on in A3) to show that the new system can, at least, provide the user with answers to these items. It is not sufficient to include a large number of tests. Evidence for T2 showed that, although there were enough good examples to show that it is understood by some Centres, the majority of Centres are still accepting vague expected results. Similarly there were too many instances of the acceptance of the simplistic "As expected" as comments on the results of testing.

Evidence in the **User Documentation** section showed most candidates do not understand the requirements of this section. It is about instructing a reasonably competent user of the software package(s) to use the system produced. It is not about teaching the user how to use the software. It is recognised that owing to the ability range of the candidates, some who are not so capable will produce software based user documentation rather than system based, or that they will not have used the relevant software features that make this possible. The commentary for U1 was usually good, though many candidates spent time showing the user where to locate the database on the school system – this would not be the same on the user's system and only emphasised the fact that the candidate did not really appreciate that they were producing a system for a third person, quite probably outside the school environment, to use. U2, however, was rarely done well; even where candidates had created an appropriate system solution, many failed to explain how to use the queries and reports they had prepared, instead showing users how to make them. U3 was a mixture of acceptable errors and invalid ones with the

consequence that, often, only one acceptable error was commented upon. This meant that the criterion for awarding that mark had not been met.

Evaluation: Those candidates who failed to thoroughly test but had included a large number of tests were often awarded high marks here. Unfortunately, since they had failed to test their system thoroughly, it is not reasonable to expect moderators to accept that the candidates can continue to adequately comment on what their system can do compared with the stated requirements.

Whilst the specification was devised to allow candidates a choice, based on their analysis of the problem, of which application package to use for this work it is the case that a database solution probably allows candidates the best possible opportunity to meet all the assessment criteria. The need for the design and implementation of user interfaces, and for different output formats, is usually not adequately met when using a software package such as a spreadsheet; the features being more difficult to manipulate at the level required for this unit.

General Certificate of Secondary Education
ICT A (1094/1994)
June 2007 Assessment Session

Unit Threshold Marks

	Unit	Maximum Mark	a*	a	b	c	d	e	f	g	u
2357F	Raw	60				43	39	35	31	27	
	UMS	55				48	40	32	24	16	0
2357H	Raw	60	45	39	33	28	22	19			0
	UMS	80	72	64	56	48	40	32			0
2358	Raw	60	58	52	43	35	29	23	17	11	0
	UMS	120	108	96	84	72	60	48	36	24	0
2359F	Raw	60				37	33	30	27	24	0
	UMS	55				48	40	32	24	16	0
2359H	Raw	60	36	30	24	19	13	10			0
	UMS	80	72	64	56	48	40	32			0
2360	Raw	60	53	44	35	27	23	20	17	14	0
	UMS	120	108	96	84	72	60	48	36	24	0

Specification Aggregation Results

Overall threshold marks in UMS (i.e. after conversion of raw marks to uniform marks)

	Maximum Mark	A*	A	B	C	D	E	F	G	U
1094	200	180	160	140	120	100	80	60	40	0

	Maximum Mark	A*	A	B	C	D	E	F	G	U
1994	400	360	320	280	240	200	160	120	80	0

The cumulative percentage of candidates awarded each grade was as follows:

	A*	A	B	C	D	E	F	G	U	Total No. of Cands
1094	1.8	10.1	27.1	47.1	63.3	76.2	87.1	95.1	100.0	35217
1994	3.2	14.9	36.6	60.8	75.4	86.1	93.6	98.2	100.0	19735

For a description of how UMS marks are calculated see;
http://www.ocr.org.uk/exam_system/understand_ums.html

Statistics are correct at the time of publication