OCR
RECOGNISING ACHIEVEMENT

GCSE

Information & Communication Technology A

General Certificate of Secondary Education **GCSE 1994**

General Certificate of Secondary Education (Short Course) **GCSE 1094**

Report on the Units

January 2009

1994/1094/MS/R/09J

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This report on the Examination provides information on the performance of candidates which it is hoped will be useful to teachers in their preparation of candidates for future examinations. It is intended to be constructive and informative and to promote better understanding of the syllabus content, of the operation of the scheme of assessment and of the application of assessment criteria.

Reports should be read in conjunction with the published question papers and mark schemes for the Examination.

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

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GCSE Information and Communication Technology A (Short Course) (1094)

REPORTS ON THE UNITS

Chief Examiner's Report

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, as in previous series, requested to actively discourage the use of additional pages and to remind their candidates that all responses (answers) must be written on the lines provided and within the marked areas.

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

Centres are reminded that 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 Mark Summary sheets. It is also a requirement for each candidate to sign a Candidate Authentication Form indicating that the work submitted is the candidate's own. These forms should be retained at the Centre unless requested by the moderator.

Centres are again requested to ensure that the moderator receives all the required documentation by the due deadline date. Moderators noted that Centres were not so efficient in the dispatch of documentation as in previous sessions and that this considerably impeded the moderation process. While this comment applies to both coursework units, in Unit 2358 (Short Course coursework, Projects 1a and 1b), where there are choices of strands and the accompanying documentation is essential in enabling the moderator choose a representative sample in order to examine the work, any missing documentation causes moderators considerable extra work.

Centres are also reminded that there **must** be internal moderation of the coursework to ensure that all candidates from a Centre have their work marked to the same standard. Moderators who find that work has not been internally moderated are required to return work to a Centre for remarking.

Centres are referred to the published OCR documents relating to coursework administration, to the 1094/1994 Specification and to the Teacher's Guides.

Note also that OCR offers a Coursework Consultancy Service for those in any doubt of the suitability of the coursework being submitted.

2357/01 Paper 1 (Foundation)

General Comments

The candidates were able to answer in accordance with their ability but there seems a weakness in knowledge of technical terms such as types of software, terms associated with web pages, and validation and verification.

Comments on Individual Questions

1   Most candidates scored the full two marks, but there were a surprising number who ringed only one answer or left the question unanswered.

2   Many achieved three or four marks on this question, but there still seems some confusion between hardware and software.

3   This question was poorly answered with few candidates gaining more than one or two marks. Despite repeated reminders, candidates answered using brand names for the software and there seemed little appreciation of the need to choose appropriate software applications for a stated task.

4   (a)   Usually well-answered with many candidates obtaining both marks. Some candidates transposed their answers with those for part b. Internal memory was often a wrong answer.

    (b)   Again quite well-answered but again candidates mixed up their answers with those for part (a).

    (c)   About half the candidates gained the mark for this, but contrary to instructions, many selected from the list.

5   (a)   Most candidates achieved at least one mark here, but often failed to score more as they confused left with right.

    (b)   Most candidates answered this question correctly.

6   Most candidates obtained at least one mark, usually for copyright or breaking the law.

7   Few candidates scored full marks, but many obtained two. Many candidates missed the recording of the temperature of the fish tank and incorrectly opted for calculating costs of phone calls.

8   (a)   This was answered quite well, but several candidates did not score a mark through missing the term home page.

    (b)   (i)   Many candidates gained the mark for hyperlink, but there were a surprising number who did not have the basic knowledge of the features of web browsers.

      (ii)   This was poorly answered by some, but well answered by others. Few candidates scored both marks. Vague answers such as "the page hasn't anything on it" did not gain credit.

    (c)   Candidates generally gained about half of the available marks. The most common answers referred to use of colour, images, sounds and videos.

9   Most candidates obtained one mark. Many thought that a fridge light was the correct answer and missed the fact that a DVD recorder is a good example of the application of control software.

10   (a)   (i)   This question was poorly answered. Most candidates wrote numbers in the spaces or left the spaces blank.

         (ii)   This question was quite well answered by many candidates.

    (b   This question was quite well answered by many candidates.

    (c)   It was pleasing to see that many candidates understood that telephone numbers should not be stored in a numeric field as this would make storing the leading zero and spaces difficult, and used this knowledge to explain why "text" was a suitable data type to use. However, there were also many candidates who scored no marks for this question.

    (d)   (i)   Most candidates scored only one mark for this question, with very few referring to whole number/integer which would have given them the two marks.

         (ii)   Many achieved the mark by just putting number in the answer somewhere.

    (e)   This question has also appeared several times before, but few candidates recognised the important fact was that the ID is unique.

    (f)   Many candidates referred erroneously to "hacking" or "hackers" when the question required a response that referred only to the need to keep the data secure and safe from unauthorised use or alteration.

    (g)   Most managed to get one mark for contacting parents in an emergency. Answers which did not gain a mark were to use as a register or find tutor group.

11   Many candidates gained two or three marks for mentioning backing up to a memory stick or retrieving from the recycle bin.

12   (a)   Very few candidates got more than two marks here. Most mentioned sending to wrong email addresses, foreign countries with no machines, language barrier, and that the foreign office would not know how to use the internet. Few really considered the drawbacks associated with sending documents by email.

    (b)   This question was not well answered at all. There were many vague answers about "not leaving home", "not meeting people face to face", "avoiding face to face contact", and few responses that stated the advantages of video conferencing. However, many managed to get one mark for something to do with no need to travel.

2357/02 Paper 1 (Higher)

General Comments

The use of brand names was evident and candidates failed to score marks because of this. Centres are reminded that candidates must use generic terms such as spreadsheet, word processor etc.

The paper discriminated well across the ability range but most candidates were able to access most questions. Candidates appeared to lack knowledge of technical terms such as types of software, terms associated with web pages, and validation and verification.

1   Candidates generally gained about half of the available marks. The most common answers referred to use of colour, images, sounds and videos. Too many candidates gave repetitive answers e.g. adding more pictures of foxes and then adding pictures of e.g. Frank which would only score a single mark.

2   Most candidates obtained only one mark. Many thought that a fridge light was the correct answer and missed the fact that a DVD recorder is a good example of the application of control software.

3   (a)   (i)   This question was poorly answered. Most candidates wrote numbers in the spaces or left the spaces blank.

         (ii)   This question was quite well answered by many candidates.

     (b)   This question was quite well answered by many candidates.

     (c)   It was pleasing to see that many candidates understood that telephone numbers should not be stored in a numeric field as this would make storing the leading zero and the spaces difficult, and used this knowledge to explain why "text" was a suitable data type to use. However, there were also many candidates who scored no marks for this question and many who gave spurious answers about area codes.

     (d)   (i)   Most candidates scored only one mark for this question, with very few referring to whole number/integer which would have given them the two marks. A significant number of candidates gave "text" as an, incorrect, response.

         (ii)   Many achieved the mark by referring to number somewhere in their answer e.g. pointing out that the original data is only number; this, while, scoring the mark does not indicate that the candidates really understood the reasons for choosing that data type.

     (e)   This question has also appeared several times before, but few candidates recognised the important fact was that the ID is unique.

     (f)   Many candidates referred erroneously to "hacking" or "hackers" when the question required a response that referred only to the need to keep the confidential data secure and safe from unauthorised use or alteration.

(g)   Most managed to get one mark for contacting parents in an emergency. Answers which did not gain a mark were to use as a register or find the tutor group.

It was pleasing to see many candidates scoring well on this question but, at the same time, it has to be noted that many candidates lack knowledge of databases and their use.

4   Many candidates gained two or three marks for mentioning backing up to a memory stick or retrieving from the recycle bin. However, there were also many vague answers such as *"be careful next time",* or "*use passwords."*

5   (a)   Very few candidates got more than two marks here. Most mentioned sending to wrong email addresses, foreign countries with no machines, language barrier, and that the foreign office would not know how to use the internet. Few properly considered the drawbacks associated with sending documents by email.

(b)   This question was not well answered at all. There were many vague answers about *"not leaving home", "not meeting people face to face", "avoiding face to face contact",* and few responses that stated the advantages of video conferencing. However, many managed to get one mark for something to do with no need to travel, which, although credited, may not be strictly true if not qualified with references to distance, overseas, other locations etc.

6   (i)   This question has appeared in previous sessions in different guises but is still answered very poorly. While a number of candidates scored quite well, most candidates had no idea of how to monitor external events using ICT. Many quoted the use of robots, collecting samples with a test tube and using a computer to analyse the sample with no explanations of how this would be achieved.

(ii)   Candidates fared better on this part of the question but most answers were very vague referring to *"make graphs"* and *"compare"* with little additional detail.

7   More candidates seem to have experience of image processing than in previous sessions and many candidates scored well on this question, often giving very good answers with explicit details of how the images could be merged. Examiners wondered, however, how the oft stated *"cutting off the grandparent's heads"* would be welcomed in most families.

8   This question was, overall, poorly answered. Most candidates, surprisingly, scored better when explaining validation than with verification, although few stated that validation used rules.

9   This question was quite well answered but few scored the full six marks. Answers revolved around the large amount of information and the unreliability of many internet sources, but few gave more details.

10   This question was very poorly answered by most candidates. Most candidates could give the features of multimedia presentation software but failed to actually describe *how* these could be used to make geography more interesting to students.

2359/01 Paper 3 (Foundation)

General Comments

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

Comments on Individual Questions

1   This question was answered well; with the majority gaining full marks.

2   Another question where many gained full marks.

3   The most common correct answers were 'bar-code reader' and 'touch screen'.

4   Again this question was answered well.

5   Many candidates gained full marks with this question.

6   There was a mixed response to this question but most candidates got 1 mark for correctly identifying that 'buying on the internet has caused some high street shops to close'.

7   (i)   The most popular answer was 'bar-code reader'.

       (ii)   Candidates were unable to give suitable reasons for using the device.

8   (a)   Most candidates were able to complete the 'star network' and 'ring network' but were unable to complete the 'bus network' correctly.
       (b)   This was poorly answered. 'Main computer' or 'computer in the middle' being most often used incorrectly.

9   Very few candidates demonstrated any knowledge of an expert system. 'Car fault diagnosis' and 'mineral prospecting' were the most frequent correct responses. Many responses were about medical systems or related to some form of database.

10   This question was answered reasonably well by the majority of candidates.

11   Most candidates got at least 2 marks using 'it is easier to modify the system and still produce payroll' and 'they still have the manual system to use if the new system fails'.

12   Most candidates gained 2 marks for identifying the differences between RAM and ROM but failed to state a use for each type of memory.

13   (a)   Answers were often about the use of robots generally and not related to the affect on workers.

       (b)   This question was generally answered well with the most popular response being 'spraying car bodies'.

(c)   The advantage marks were usually gained for 'can work 24/7' and 'they don't need paying'. A common response was 'robots are quicker than humans'.
The disadvantage marks were usually gained for 'robots are expensive to buy'.
Some candidates used 'loss of jobs for workers'.

14   This question was badly answered. Many failed to appreciate that it is a quicker method of producing personalised letters because data is automatically entered from a database.

15   This question was very badly answered. There were very few worthwhile responses.

2359/02 Paper 3 (Higher)

There was a slight improvement in candidate performance compared with previous years on a paper which allowed all candidates opportunities to display their knowledge.

Most candidates attempted the majority of the questions and made a reasonable effort throughout the paper.

It is still disappointing, however, to see so many candidates failing to answer questions well which only require fairly basic technical knowledge. The majority of candidates appeared not to have even the most rudimentary grasp of technical terms.

Below is a description of the main points of misunderstanding on the part of the candidate. Where candidates performed as expected the question has not been included.

General Comments

1   Most candidates gained 2 or 3 marks but many did not understand what a check digit is.

2   The majority of candidates gained at least 2 marks with one of the first two correct answers being combined with the last answer.

3   Candidates generally gained two marks for the comparison but a very few managed even one use.

4   (a)   A number of candidates managed to gain at least 2 marks with the popular answers being losing jobs and retraining.

        (b)   Well answered with candidates often gaining both marks.

        (c)   Many were able to name an advantage but fewer gave a disadvantage.

5   Not very well answered. Many candidates said it was 'quicker' with no further explanation.

6   This was the highest scoring question on the paper with many candidates scoring at least 4 marks.

7   (i)   Well answered with many candidates getting 2 or 3 marks. The most frequent omission was looking at documents.

        (ii)   Well answered although the reasons were sometimes weak'.

8   This was quite well answered though many candidates only mentioned two methods, with firewall and password being the most popular. Some candidates, however, thought the question was about the Data Protection Act.

8   (a)   Candidates managed to score some marks but few gained more than two. There were many misunderstandings on the part of candidates some claiming that voice output would help the deaf.

9   (a)   Candidates scored higher than in previous sessions though 3 or 4 marks seemed to be out of the reach of most candidates. An in depth knowledge of expert systems was lacking.

9   (b)   Candidates did reasonably well on this question with many giving at least one good answer.

10   This was not as well answered as envisaged. Candidates often got a mark for portable and sometimes for backup but little else.

11   Answers were very variable. Some candidates had little idea of what validation is. A number however were able to identify appropriate validation checks but failed to give reasons for their suitability. A large number framed their answers around the field type that would be required for each field rather than the validation check that would be required. Some just discussed the merits of validation as a method of checking data.

2358 (Short Course Projects 1a/1b)

General Comments

Although there was an increased understanding of the requirements of the coursework, there were still a number of causes for concern.

As has been noted in previous reports, where Centres failed to apply the assessment specification accurately it was mainly in the marking of Project 1a. There were still a number of Centres where teachers failed to annotate the candidates' work with regard to where the evidence for meeting the criteria could be found. It is apparent that not all Centres are taking advantage of the Teacher's Guide published by OCR. This should be used in conjunction with the criteria for assessment, the notes for guidance as well as this report. If all four were used when assessing the work, this would remove many of the problems apparently experienced by Centres.

The training courses which OCR organise also provide opportunities for individual Centres to raise points specific to their own candidates' work.

Fewer Centres had to be reminded to provide the Centre Authentication sheet (CCS160) signed by its teacher/assessors. There were still, however, a number of Centres failing to send Coursework Summary Forms. This delays the whole moderation process and can result in Centres failing to have their results published on time. It is in the Centre's own interests to adhere to deadlines and to also provide the coursework sample within the three working days deadline.

The lack of internal moderation carried out by some Centres appears to be increasing. Centres are reminded that they have a responsibility to carry out internal moderation of marking as it is a requirement of the specification. If internal moderation is not carried out it can lead to inconsistencies in marking. If these inconsistencies lead to an invalid order of merit moderators are required to return the work to Centres and ask them to re-mark the work. Such action, of course, can result in a delay in publication of the Centre's results.

Project 1a

A number of Centres still fail to understand the need for candidates to meet all the criteria in a given mark range. This process has always been applied for Project 1b and so should have been fully understood by Centres.

Most Centres now realise that for marks above 10 candidates must produce a significant piece of work. This means that a booklet or website of 8 pages, or a presentation of 8 slides is required as a minimum.

Centres are still failing to realise the importance of the use of non-IT sources. Candidates fail to get 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. Just collecting leaflets and booklets or magazines is insufficient. Information from them, whether it be text, images or numbers, must be incorporated into their final product. All non-IT sources must be hard copy. The use of the candidate's own knowledge, memory or 'my teacher' is not considered to be using non-IT sources. A number of Centres still think that it is acceptable to show an image or some text and then give the name of the book or magazine it came from, it is not. 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 the inclusion of numbers is also mandatory at low mark levels. Candidates cannot base their use of number on graphs if they do not show the table of numbers which their

graph is based on. Some Centres have candidates which copied and pasted graphs which were really images from their sources. Any confusion is easily removed if the original numbers are included and the method of graph production is demonstrated.

The easiest approach is to use a table of numbers (as requested in the Teacher's Guide at 8-10 mark level) in the final document and also showing in their write up where these numbers came from.

Centres are advised to carefully note the following:

For any marks at all to be awarded, candidates must provide evidence that they have 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. It is not sufficient for candidates to look at the Internet or CD-ROMs, or in magazines, books and newspapers for 'research' purposes. Many candidates think that the point of collecting non-IT sources is to provide ideas for layout and presentation. It is not; it is so the information collected can be used.

For marks above 2 to be awarded there must be evidence of numbers (plural) in the candidate's work. This was a major failing amongst many candidates. As has been stated in many 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 such as dates, times or prices are used they cannot have dashes, slashes 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.

For marks above 4 to be awarded candidates must make a statement about the purpose of the work. Centres seemed to struggle with the concept of purpose. As it mentions in the Teacher's Guide, the purpose must include identification of an audience and a description of the information to be communicated as well as the reason for undertaking the work. The reasons are often omitted by candidates. Some Centres still seem to think that it is in order to get the candidates to produce a booklet on their favourite football team, music artists or other pastime without giving thought as to why this might be needed.

For marks of 7 or higher 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 reduction in marks. 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 really apply to the vast majority of publications and so cannot count in this context. In addition, just writing that they

have made changes as they felt it would suit their audience is not enough. Candidates need to say why they feel it would suit their audience.

Some Centres mistakenly think that the reference in the specification and in the Teacher's Guide to a 'piece of work' includes their documentation. This is not so; checking the work and showing consistency applies to the product, not to the candidate's write up.

For marks above 10 candidates must produce a significant piece of work. A significant piece of work is deemed to be one of at least 8 sides of A4 or even A5. The 8 sides is the actual product and this does not include accompanying documentation. A number of Centres ignored this.

For marks above 13, information from a minimum of 2 different IT sources must be included in the booklet or presentation. The internet is considered to be only one IT source. Candidates 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. In addition searching using multiple criteria requires the use of Boolean operands or the use of Advanced Search features. The resulting information found must be included in their final product. If the second source is clipart, the source must be clearly shown. Many candidates just show images and claim they came from clipart. To avoid any confusion, candidates should provide evidence that the work did not come from the internet.

It still appears that certain Centres allowed candidates to spend a lot of time producing a booklet and then, at the end of this process, tried to identify the skills which had been awarded. A more structured approach is suggested whereby candidates are advised how and where they can obtain credit for skills. One simple way of structuring the work is to allow candidates to produce between two and four pages of a booklet confining themselves to the use of in-house clipart and scanned images as their pictures. The candidates can then complete their booklets by moving on to use the internet as a source of further information. At the other end of the spectrum, as GCSE candidates must work independently, a structure which involves worksheets which clearly define each step in the process and dictate to the candidate what they should do is also advised against. Such an approach or other on-line methods such as writing frames, can limit a candidate's ability to produce their own work.

Again, the single biggest shortcoming in the work seen was the inability of candidates to meet the hyperlinks/refined search criterion, required for marks above 16. It cannot be achieved by candidates simply following a number of hyperlinks. Candidates have to relate their choice of which hyperlinks to follow to their purpose and audience. Many candidates do not refer to their audience when considering which hyperlinks to follow or indeed which information to use as a result of following the hyperlinks. This leads to a reduction in marks. A number of hyperlinks must be followed and the resulting information they find must be used in their final product.

For marks in the top mark range candidates must provide evidence of having used a proof reader as well as a spell checker. A proof reader must be a suitable adult who must be identified. They must then annotate a version of the booklet or presentation to indicate errors in spelling, grammar and factual information and sign that they have done so. It is not sufficient for the proof reader to just sign the work and say they have found no errors. The candidate must then produce a final version of the booklet or presentation with these errors removed.

Project 1b

A number of Centres are still not following 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

Centres are reminded 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. A number of Centres disregarded this requirement and had their marks reduced accordingly. In this specification the criteria are hierarchical and so if a candidate fails to verify their database, for example, they are going to get very low marks no matter how many of the higher criteria they have met.

There were still a very small number of Centres awarding marks for this strand despite there being little evidence of searches (interrogation) performed on the database used. This leads to a mark of zero being awarded. 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 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. This must include evidence of the actual magazines or web sites. Printouts must show the data that has been transferred to the data capture form. 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 (plural) and so requires an absolute minimum of two complex searches. A minimum of two different Boolean operands must be used.

Some Centres are still confused over the requirements for validation. Proof that validation has worked is required. This is done by producing screen dumps showing error messages being produced as a result of the candidates setting up their own routines (plural – one is insufficient). The requirement is for candidates to use routines. Just ticking a compulsory field option or 'must be answered' option is not writing a routine. Defining range checks, however, is equivalent to writing a routine. 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.

A disturbing trend in much of the work seen was the lack of annotation by candidates. Many often failed to include a description of the task they were undertaking. 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. If candidates have not specified a task they are unable to relate their choice to the task. It is apparent that many candidates have little experience of using alternative data handling packages to the one they used to create their database.

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. Some of the reasons given are rather trivial, often stating what information the field contains rather than the reason why it is needed. They will also need to give reasons for their choice of field types and explain their choice of field lengths. A number of Centres think that it is sufficient for candidates to list these rather than give reasons for their choice. This is not acceptable.

For the highest mark range of all 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 not as an afterthought somewhere towards the end of the work. 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.

It is to be remembered by Centres that only the most able of students should be awarded marks in this range as it is intended to be a true discriminator for grade A/A* candidates.

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 word simple is not used in the Teachers' Guide at these mark ranges). The requirement for 'Use the software to provide the answers required to solve the problem' is that predictions are made.

Centres are still using writing frames as prompt sheets for candidates and worksheets with very prescriptive instructions. As it said earlier in this report, GCSE candidates must work independently, a structure which involves worksheets which clearly define each step in the process and dictate to the candidate what they should do is advised against. Often this leads to candidates being unable to truly explore the model. More Centres are now aware of what a complex model is but validity of a model is still causing problems. Candidates are required to compare the model with a real life situation in order to secure credit. Candidates who just write about what their model is made up of and say that they have met their original aim do not meet this requirement. 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, 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 and must also show a number of steps in its creation not just write about the finished model.

Measuring

Only one Centre submitted work for this strand.

Control

No Centre submitted work for this strand.

2360 Project 2

General Comments

As in previous examination January series, this series has not proved to be particularly popular with Centres and the number taking this opportunity to make entries was low. At the same time, most Centres submitted only a small number of candidates, despite having made large provisional entries.

Moderators still receive evidence that demonstrates that some candidates are left to get on with their work in what appears to be an almost unsupervised manner and therefore produce projects that contain vast amounts of commentary, which often either does not meet the assessment criteria or only provides extra evidence to what has already been achieved, and so is really a waste of the candidates time. This appears often to be coupled with the problem that vital evidence is missed but credit is given anyway (possibly for doing lots of work) which leads to the moderator not being able to support the awarded marks and recommendations being made for changes to be applied. One entry was a project of more than 250 pages which is about four times the recommended amount for an A* grade project.

Specific Comments

Analysis

- Candidates continue to make comments about the type of solution they will produce within their comments about the problem. It should be noted that these comments should be made at the point where they discuss in generic terms the type of software package that they will use and therefore should come at the end of this section.
- Moderators have seen a great improvement in the evidence included here, but there are still candidates who are being awarded marks without the supporting evidence of correspondence between themselves and their users to set up the chosen method. In a small number of cases, candidates were awarded marks with no evidence at all that any information collection system had been used.
- As has been noted many times previously, Analysis is a vital part of the project and documentation not included here has a knock-on effect later. Candidates should comment on a number of things that the present system does for the user, by mentioning the inputs that are used, how the system processes that information for the user and what results are output. This is not the place for candidates to list the various fields that their database must contain. Generic comments about hardware and software should also be made to reach the 3 or 4 mark criteria.

Design

The work here should be based on what the candidate has said in the previous section and comparison with that and those requirements will help them and the assessor, judge if the designs they produce also meet the "appropriate" requirement. It has been noted here a number of times that for all of the first three sub-sections, to get 1 mark, then there must be one design for every relevant part of the system they are producing. To get 2 or 3 marks, then there must be at least one other appropriate design for every relevant part of the system.

For the final section, the comments made by candidates must not only be specific, but be relevant to the system being produced. It is not acceptable and is a waste of time and effort for candidates to comment on various types of Office package, virus checking software, operating systems or items of hardware that their system will not actually use (e.g. joysticks, scanners,

digital cameras, etc are often included here, but would not be used in any way with the system and so are considered irrelevant).

Implementation

The assessment of the work produced by the candidates in this section is often the most accurate. It needs to be pointed out that for the first two sub-sections, these comments should be about the features of the software package(s) used to produce the system; some candidates had been awarded marks, but very little commentary included mentioned any of the features. Changes made should not make the chosen design work appear to be inappropriate.

For the final sub-section, it should be noted that for the moderator to agree with the awarding of the mark, e.g. if mail merge is the process that is to be employed there must be included in the work a printout of the data existing in the original package, a template document and a small number (at least one) of copies of the final document including the claimed set of data (which should be a perfect match) having been transferred. For the 2nd mark to be awarded, then a second transfer, using a different data set, for a different reason must be demonstrated.

Testing

- To meet the "thorough testing" requirement, the candidate must show that their system can do **at least** what they have commented on in A3. Without reference to this work, then even doing a large number of tests candidates cannot be credited with more than 2 marks.
- Comments about "expected results" must be specific; it is not acceptable to state that the result of an interrogation will produce a number of records found. At the same time, to be awarded the 3rd mark, there should be comments stating why certain test data has been chosen.

User Documentation

The work here was often found to describe how the system can be found on the school network and was biased towards the use of the software package(s). It should be noted that within the specification it is made clear that the commentary should be made with the knowledge that the reader is a competent user of the software packages chosen. At the same time, unless the users are working within the school environment, then instructions about finding the system in the school network are irrelevant.

Evaluation

Many candidates, despite in some cases having done multiple testing, had not met the "thorough testing" requirement. Therefore it was not possible to agree that they could do any more than meet the first mark requirement, which is to state what their system could do.

Grade Thresholds

General Certificate of Secondary Education
ICT A (1094/1994)
January 2009 Assessment Session

Unit Threshold Marks

Unit		Maximum Mark	a*	a	b	c	d	e	f	g	u
2357F	Raw	60				39	35	31	27	23	0
	UMS	55				48	40	32	24	16	0
2357H	Raw	60	39	34	29	25	20	17			0
	UMS	80	72	64	56	48	40	32			0
2358	Raw	60	58	53	45	37	31	25	19	13	0
	UMS	120	108	96	84	72	60	48	36	24	0
2359F	Raw	60				36	32	28	24	20	0
	UMS	55				48	40	32	24	16	0
2359H	Raw	60	40	34	28	23	17	14			0
	UMS	80	72	64	56	48	40	36			0
2360	Raw	60	53	45	36	28	24	21	18	15	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	1.2	10.3	29.4	60.3	77.0	88.8	95.2	98.8	100	433
1994	5.5	28.8	66.9	87.1	99.4	100	100	100	100	253

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

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