

Information & Communication Technology A

General Certificate of Secondary Education **GCSE 1994**

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

Report on the Units

June 2009

1994/1094/MS/R/09

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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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CONTENTS

GCSE Information and Communication Technology A (1994)

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

REPORTS ON THE UNITS

Unit/Content	Page
Chief Examiner's Report	1
2357/01 Paper 1 (Foundation)	2
2357/02 Paper 1 (Higher)	4
2359/01 Paper 3 (Foundation)	6
2359/02 Paper 3 (Higher)	8
2358 (Short Course Projects 1a/1b)	10
2360 Project 2	15
Grade Thresholds	17

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.

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

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

Once again, moderators noted that many Centres were not prompt in the dispatch of documentation or moderation samples and that this considerably impeded the moderation process. While this comment applies to both coursework units, in Unit 2358 (Short Course coursework, Projects 1a/1b), where there is a choice of four strands for Project 1b and therefore the accompanying documentation is essential in enabling the moderator to choose a representative sample in order to examine the work, any missing documentation causes moderators considerable extra work. Centres are again requested to ensure that the moderator receives all the required documentation by the due date. It was also noted that many Centres delayed sending the requested sample to the moderators, again impeding the moderation process which in turn may cause a delay in the publication of results to Centres.

Centres are again reminded that it is a requirement for both Unit 2358 (Projects 1a/1b) and Unit 2360 (Project 2) that they 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) along with, for Unit 2358, the Coursework Mark Summary sheets. 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.

N.B. Please note the deadline each year for MS1's, Coursework Summary Form (Unit 2358 only), and Centre Authentication Forms to be received by moderators is the 15th May at the latest.

Centres are also reminded that there must be internal moderation of the coursework to ensure that all candidates work is 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. There was a marked increase in the number of Centres where internal moderation appeared not to have been carried out.

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

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

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

For this specification, Centres are, once again requested to actively discourage candidates from using additional pages and to remind their candidates that all responses (answers) must be written on the lines provided and within the marked areas. If candidates use additional pages or write elsewhere in the question paper they must make it very clear to the examiners which question they are actually answering. Responses that are not assignable to questions cannot be given credit.

2357/01 Paper 1 (Foundation)

General Comments

The standard of candidate responses appeared to be similar to previous examination series. Most candidates attempted most of the questions and there seemed to be fewer spoiled papers or candidates not attempting questions.

Comments on Individual Questions

- 1) Most candidates scored the full two marks. There was, however, some confusion between name and user ID by some candidates.
- 2)
 - (a) Many candidates scored three or more marks for this question but some candidates were confused by the reference to 'hard copy' which led many to allocate hard disk in the wrong place. In turn, this often meant that a different choice had to be made for the first answer.
 - (b) Most candidates answered this question correctly.
- 3) This was answered well by many candidates although a significant number thought the lamp was the input device.
- 4) Many candidates scored 2 or 3 marks for this question, the most common error was choosing TRUE for storing large video files on a floppy disk. While floppy disks may not be in common use in schools or homes, they are still a valid storage medium used in many areas and candidates should be aware of the advantages/disadvantages of storage media.
- 5) Most candidates scored the three marks for this question.
- 6)
 - (a) This question was answered well.
 - (b) Few candidates described what the formula did, most answers stating what the formula was in terms of cells and failed to score the full marks.
 - (c) Most candidates could either answer this question well and scored both marks, or were unable to put their ideas into words. There were a surprisingly large number of "cut and paste" answers.
 - (d) Many students achieved one mark for using $D4+D5+D6+D7$, but not many achieved both marks by using the SUM function. The question asked for "the most suitable" formula not merely one that worked.
 - (e)
 - (i) On this question, it was disappointing that many candidates failed to score the full three marks.
 - (ii) This was very poorly answered. Some candidates realised that the £ would be automatically put in, but many did not know. The significant fact that calculations could still be done on a number was missed by most candidates.

Report on the Units taken in June 2009

- 7) Most candidates could respond with “fill” and “crop” but many failed to state both select and move, or wrongly stated “copy and paste”.
- 8) (a) Most candidates could correctly choose Date and Text, but were confused with Integer and Real number. Most candidates only scored 2 marks.
- (b) Most candidates still use “quicker”, “easier” without clarification and so were not awarded a mark. The answer which scored a mark most regularly was the one involving the saving of storage space.
- (c) This was poorly answered by many candidates as they were more concerned with filling in the database, not creating a data capture form on paper. Usually the only mark gained was for entering the data into the database.
- (d) Although this question has been asked many times, candidates still do not know why validation is carried out.
- 9) (a) The common answers to gain marks were user feedback and questionnaires, but very few of the other options were given. Candidates appeared to be unaware that a developer should have to give proof to a prospective buyer and consequently there were very few marks awarded here.
- (b) Most candidates scored only one mark here. Copyright was used quite often without expansion. Some knew about licence keys and original media to be used, but other options were not seen. There was confusion between passwords and user name and passwords.
- (c) This question was answered quite well except that many candidates wrote only “anti virus software” without explaining that they need to use it.
- 10) (a) A common misconception was that each of the computers was made into a network, hence three networks. Sharing of files, hardware and the internet were common answers which scored the marks.
- (b) The common answers credited with marks were about the spreading of viruses and lack of privacy and there were few other suggestions.
- 11) The question was one which seemed within most candidates’ experiences and consequently they scored well here, usually scoring at least two marks.

2357/02 Paper 1 (Higher)

General Comments

The paper discriminated well across the ability range and most candidates were able to access most questions. Candidates appeared to lack knowledge of technical terms such as validation and verification. Candidates often gave superficial answers to questions that clearly demanded more than a few words e.g. the question on CAD and on the features of spreadsheets.

Comments on Individual Questions

- 1)
 - (a) Candidates appear to be familiar with the use of spreadsheets but unable to be precise in their use of formulae. Few candidates scored the 2 marks for =SUM (D4:D7). Those that scored a single mark either wrote '=SUM' followed by an incorrect range or wrote '(=)D4+D5+D6+D7'. The question asks for the "most suitable" formula not merely one that works.
 - (b)
 - (i) Many candidates scored the full 3 marks but some neglected the first step of highlighting the cells.
 - (ii) Most candidates scored the mark on this question but many referred to "always knowing it is money" demonstrating no understanding at all. Few knew that the cell contents remain numbers and can therefore still be used in calculations.
- 2)
 - (a) Some candidates referred to user feedback and screenshots but few mentioned a test plan and the results. Screenshots and the use of questionnaires to collect user feedback were common answers. This question was not well answered by most candidates. Some candidates wrote about features that a good graphics software package would/should have or compared it with "another graphics package" which did not answer the question.
 - (b) This question was usually well answered but many candidates mentioned copyright but did not expand on this. Common errors were "add a copyright law to the package", "Put a copyright on it" or "Use the copyright law". Some candidates, however, correctly explained the use of key codes, activation codes, user / licence agreements or EULAs.
 - (c) Quite a few candidates wrote generic answers about e.g. email attachments etc and did not address the requirements of the question.
- 3)
 - (a) Usually well answered although a significant number of candidates transposed the responses to B and C.
 - (b) Many candidates scored well but still too many made unqualified responses such as "quicker/faster, easier". "Saves space" appeared without stating how/where this would save space. Too many candidates referred to spelling errors and ensuring that the data would be correct. However, it is pleasing to note that some candidates were aware of the simpler validation of data as it is being entered.

- (c) Some candidates ignored the collection of data on paper but designed a data entry form or [data] table layout within a database or a spreadsheet and entered the data directly into this (and in the case of the spreadsheet it would then be re-entered into a database). Other candidates referred to the use of scanners – either to scan barcodes or to scan the [printed spreadsheet] table into the database.
Many candidates mentioned field headings (with examples) and columnar layout but all too often this was within the context of entering data directly to computer. However, many candidates described the production and use of a data capture sheet for use when collecting the original data from the items in preparation for entering it into the database.
- (d) Candidates could give an example of a validation check but this was not answering the question and too many candidates stated “ensuring that the data is correct, check for spelling errors” etc. This question was not well answered but it is pleasing to note that a significant number of candidates did score both marks.
- 4) (a) This question was quite well answered but too many candidates produced generic responses, often with clear references to a school environment despite the question referring to a home network. Candidates must read all of the information in the question.
- (b) As for part (a), this question was quite well answered but too many candidates produced generic responses, often, again, with clear references to a school environment. Many candidates pointed out that parents could monitor the activity of their children.
- 5) This question was not well answered at all although a number of candidates scored quite well by stating, for example, that microwave ovens with built-in weighing and food-type selection can automatically calculate cooking time/heat levels and be left to cook food while the user does something else.
- 6) This question was well answered by most candidates with references to e.g. cyber-bullying, distractions, sending work to/from teachers/home.
- 7) Answers to this question showed that candidates have little experience of CAD with most answers being superficial.
- 8) This question was well answered by most candidates.
- 9) This question demanded more of candidates than a list of features of spreadsheets so only those that expanded on the features and their use scored marks.

2359/01 Paper 3 (Foundation)

General Comments

The majority of candidates attempted all of the questions on the paper. A few made no response to question 14.

Comments on Individual Questions

- 1 The majority of candidates scored one mark and there were quite a few responses that gained two marks.
- 2 Most candidates scored 3 or 4 marks for this question with most candidates failing to identify the statement 'The working environment is a lot more dangerous' to be false.
- 3 This was not generally well answered by most candidates. Usually only one of the three correct responses was chosen.
- 4 'Memory stick' was nearly always correctly identified and most candidates also identified 'A graphics tablet' but the other items were usually misplaced.
- 5 This question was very badly answered by most candidates. Candidates showed little understanding of the three data categories.
- 6 Considering that questions about Graphical User Interfaces have been common in previous examination series, there were few responses scoring the full three marks. "Command line" and "printers" were often incorrectly identified as features.
- 7 (a) A correct device was rarely given.
- 7 (b) The response to this question was very poor by most candidates. Often answers such as 'verification' were given.
- 7 (c) This was generally well answered by most candidates.
- 7 (d) There were many vague answers such as "customer details" and many candidates incorrectly stated that 'bank balance' was read from the card.
- 8 The 'star' network was usually correctly identified but 'line' and 'circle' were common incorrect responses for the other two.
- 9 (a) 'Questionnaire' was by far the most common correct answer with a few candidates choosing 'observation' as their answer.
- 9 (b) There were many vague answers. Many candidates scored one mark for 'people don't always tell the truth' but very few candidates scored the full two marks.
- 10 (a) Not many candidates scored well on this question. One or two candidates confused encryption with passwords.
- 10 (b) Most candidates scored 1 mark but few could expand their answer to gain a second. Quite a few responses merely re-worded the stem of the question stating that passwords prevented unauthorised access to data.

Report on the Units taken in June 2009

- 10 (c) There was frequently no response to this question. Those candidates who scored a mark usually wrote about fingerprint or retina scanning.
- 11 This question was well answered with most candidates scoring the three marks.
- 12 'Hyperlinks' was a common answer with many candidates scoring a second mark for describing this feature. 'Video' and 'sound/music' were commonly mentioned but usually without sufficient expansion to gain a second mark.
- 13 There were many good responses to this question.
- 14 (a) Many candidates were confused about 'teleworking', often confusing it with telesales teleconferencing or even something involving television.
- 14 (b) There were very few good responses by many candidates. The most common answers were 'flexible working hours' or the savings in time and money by not having to travel.

2359/02 Paper 3 (Higher)

It is pleasing to note that there was, again, some improvement in candidate performance compared with previous examination series and that most candidates attempted most of the questions.

It is disappointing, however, once again to see that many candidates fail to answer, and to score well on, questions which only require a basic knowledge of ICT. The majority of candidates appeared not to have even the most rudimentary grasp of technical terms.

General Comments

- 1 (a) Most candidates scored at least 1 mark but many did not understand what encryption is.
- 1 (b) The vast majority scored at least 1 mark but failed to expand on the restricted access aspect of the question.
- 1 (c) Very few candidates showed any understanding of biometric data and how it is used.
- 2 The majority of candidates scored full marks on this question.
- 3 Most candidates scored at least three marks. Marks were lost mainly because candidates did not give relevant expansions to valid features. Some candidates answered with what DTP cannot do rather than what websites can offer
- 4 The majority of candidates scored full marks on this question.
- 5 (a) This question was not very well answered by most candidates. Many candidates focussed on the word prefix 'tele' as in tele-shopping, phone sales etc. Very few seemed to understand its meaning. Many candidates did not understand the term giving answers that implied video conferencing, telesales, call centres, or remote viewing of computer systems (often on a TV).
- 5 (b) Candidates often repeated their answer to a) and seemed unable to describe any advantages of tele-working.
- 6 This question produced a range of marks from candidates but a sizeable minority of candidates were unable to gain even 1 mark. It would appear; however, that validation and verification seem to be better understood than in the past.
- 7 This question was poorly answered with many candidates unable to compare the different methods. Many candidates wrote about the whole systems cycle and others wrote about different types of software which might be used.
- 8 This question was well answered by many candidates. Candidates were able to provide a number of advantages and disadvantages.
- 9 This was not well answered by most candidates. Very few candidates seemed to have any understanding of expert systems and most concentrated on the systems approach without being able to refer to any aspect of an expert system. Some candidates decided that the system was already up and running and wrote about how it was used.

Report on the Units taken in June 2009

- 10 This question was quite well answered by many candidates. Some candidates, however, were only able to mention a number of different types of media and devices without considering their suitability or otherwise. Many candidates described the use without mentioning suitability.

2358 (Short Course Projects 1a/1b)

General Comments

Even though the coursework requirements have been the same since 2004, there was still a concern that a number of centres still do not understand them.

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 was still a number of Centres where teachers failed to annotate the candidates' work with reference 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 this documentation was used when assessing the work, this would remove many of the problems apparently experienced by Centres.

The training/INSET courses which OCR organise also provide opportunities for individual Centres to raise issues 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 are 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 3 working days deadline.

The lack of internal moderation carried out by some Centres is still a cause for concern. Centres are reminded that they have a responsibility to carry out internal moderation of their marking. If internal moderation is not carried out it can lead to inconsistencies in the award of marks. If these inconsistencies lead to an invalid order of merit, moderators are required to return the work to Centres and ask for the work to be remarked and such action will result in a delay in the publication of the Centre's results. There has been an increase in the number of incidences of work being returned for remarking for this reason in recent examination series.

Project 1a

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 only collect information from non-IT sources. Candidates must take this information and incorporate it into their work, i.e. the final product. Further, 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. This is not so; the information collected must 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. 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 also a requirement at 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 apply to the final product, not to the candidate's supporting documentation.

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 A5 paper. 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 them 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 opportunities 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 found 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 meet 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 meet 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 should be noted by Centres that the marks in the highest range are intended to be a 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 already noted in this report, GCSE candidates must work independently and 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 the contents of their model and 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

It was found that many centres are assessing work too leniently and not applying the assessment criteria with as much rigour as they should. Centres are reminded that moderators will recommend mark adjustments for work that is not assessed accurately.

Despite this specification having run for a number of years now, many centres still make errors in the marks submitted. These errors include simple arithmetical errors in adding up the total marks awarded for each of the sections, failure to add on the “communication” mark, or transcription errors made during the completion of the MS1. Centres are asked to take more care with this task and the use of a simple spreadsheet to record the individual section marks, which employs a summation formula to give the overall mark, might be considered. At the same time, a copy of this spreadsheet, sent to the moderator would help them as it is often rather difficult to read the mark awarded on the copy of the MS1.

Once again, the vast majority of centres made every effort to help in the moderation process by submitting the marks and the requested sample within the required deadlines and for this they should be thanked. However, there were a small number of centres where this was not the case and despite many contacts being made, the items required by the moderator to complete the process were not sent promptly. Centres are reminded that failure to promptly submit documentation and samples may result in a delay in the publication of the results to Centres.

Specific Assessment Comments

Analysis

This should begin with a description of the problem to be solved, which might then be broken down into sub-problems. Projects which start with “For my database project” do not qualify for marks in A1. Similarly, candidates should be discouraged at the early stages from making any comment about the solution which is correctly decided upon during the work for A3.

Many more candidates are now making an attempt to demonstrate that they understand the whole process of collecting information but much of the evidence lacks the required level of realism and, in some cases, marks were awarded where, in fact, no evidence that information had been collected was included.

Inputs, processing and outputs should be a number of scenarios of the present system providing the user with answers. These are not lists of the different fields a database will require and at the same time, where a candidate is working on a complex problem, then it is reasonable to expect that at least one of these scenarios should reflect this. This section is vital to the candidate being able to achieve a high mark overall as other assessment criteria depend on what is described here.

Design

For each of the first 3 sections, to award 1 mark, there must be evidence of *all* related items being considered i.e. where the candidate has discussed three types of output format, then for 1 mark to be awarded for D3, then there must be evidence of one design for each of the three formats required by the system. To award 2 or 3 marks in each of these sections, then there must be evidence of a second design for every item relevant to that part. All designs must also

meet the requirements to be appropriate, which can be judged by looking at the comments for A3 and asking if a design would allow that task to be carried out.

For D4 candidates are required, having designed the various parts of their system to choose the most relevant hardware and software packages to implement it. Comments about virus checking software, operating systems or based on different type of "Office" package are irrelevant and cannot be credited.

Implementation

Whilst this section is usually done reasonably well to qualify for awarding 2 marks, it is often found that assessors are giving credit to candidates commenting about changes made that have already been described within the design section. It would seem that the major problem here is that candidates appear to set out on this work knowing that they are going to produce a database using a particular package, and then try to produce evidence to show that they have come to that conclusion. i.e. they know the package features so well that their design work is too heavily influenced by these.

I4 requires evidence of the transfer of data from one package to another for further processing. There must be evidence of the chosen data existing in each package e.g. a template document (where applicable) and at least one version of the final product. For the second mark to be awarded, this must happen a second time for a different purpose. Note that "cut & paste" is not an acceptable method of data transfer.

Testing

For T1, at the 3 mark level where evidence is required that shows "thorough testing" appears to be misunderstood. In many previous reports, and at training/INSET session, it has been shown that the required evidence for this criterion is that the candidate refers back to their work in A3 and demonstrates that their system can produce answers to these in the form the user requires; to simply include a large number of tests does not meet the requirements.

The comments about expected results must be specific; i.e. it is not acceptable to say that a particular interrogation will result in 3 records being found, these records must be accurately identified in evidence.

User Documentation

It should again be noted that within that the reader is a competent user of the software packages chosen.

Evaluation

Many candidates still do little more than meet the 1 mark requirement, which is to say what their system could do.

Grade Thresholds

General Certificate of Secondary Education
 Information and Communication Technology A (1994)
 Information and Communication Technology A (Short Course) (1094)
 June 2009 Examination Series

Unit Threshold Marks

	Unit	Maximum Mark	a*	a	b	c	d	e	f	g	u
2357F	Raw	60				35	31	27	24	21	0
	UMS	55				48	40	32	24	16	0
2357H	Raw	60	34	29	24	20	14	11			0
	UMS	80	72	64	56	48	40	36			0
2358	Raw	60	58	53	45	38	32	26	20	14	0
	UMS	120	108	96	84	72	60	48	36	24	0
2359F	Raw	60				28	24	21	18	15	0
	UMS	55				48	40	32	24	16	0
2359H	Raw	60	34	28	22	16	11	8			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	2.65	12.6	30.47	51.86	67.85	78.77	87.36	94.21	100.0	18964
1994	4.13	17.66	42.63	67.5	81.36	89.8	95.34	98.46	100.0	12415

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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