GCE

Applied ICT

Advanced GCE **AS H515**

Advanced Subsidiary GCE **AS H115/H315**

Reports on the Units

January 2010

H115/H315/R/10J

Oxford Cambridge and RSA Examinations

OCR (Oxford Cambridge and RSA) is a leading UK awarding body, providing a wide range of qualifications to meet the needs of pupils of all ages and abilities. OCR qualifications include AS/A Levels, GCSEs, OCR Nationals, Key Skills, Entry Level qualifications, NVQs and vocational qualifications in areas such as IT, business, languages, teaching/training, administration and secretarial skills.

It is also responsible for developing new syllabuses to meet national requirements and the needs of students and teachers. OCR is a not-for-profit organisation; any surplus made is invested back into the establishment to help towards the development of qualifications and support which keep pace with the changing needs of today's society.

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 specification 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.

Any enquiries about publications should be addressed to:

OCR Publications
PO Box 5050
Annesley
NOTTINGHAM
NG15 0DL

Telephone: 0870 770 6622
Facsimile: 01223 552610
E-mail: publications@ocr.org.uk

CONTENTS

Advanced Subsidiary GCE ICT (Double Award)(H315)

Advanced Subsidiary GCE ICT (H115)

REPORTS ON THE UNITS

Chief Examiner's Report

This was the first session using the revised specifications for both the externally and internally assessed units. There was no change to the specification for G041 and the performance was similar to previous sessions. Some changes were made to G054 and G055 to incorporate stretch and challenge. These changes did not seem to have a significant effect on candidates' performance on either paper.

Responses in section B of all papers continue to limit the marks that can be awarded. Centres are reminded of the need to teach the concepts covered in the Unit content section of the units, as well as preparing candidates to complete the pre-released tasks.

Generally the quantity and organisation of pre-release work was appropriate. There were still a few candidates who failed to specifically identify their responses to the marked tasks. If tasks are not clearly identified, it is difficult for examiners to locate these tasks in order to mark them. Please ensure that each task is clearly labelled and that the work is submitted in task order. Draft copies of tasks are **not** required and should **not** be included. If there are several copies of a task, it makes it difficult for the examiner to determine which one they should mark.

Centres are reminded that candidates should only submit work carried out in response to the tasks for use in the examination. In particular, task 1 must **only** include what is specified within the task in the candidate instructions and be clearly applied to the relevant case study. General class notes based on the Unit content section of the unit or material downloaded from the WWW must **not** be taken in to the examination. However, **all** work taken into the examination room **must** be attached to the examination paper and submitted to the examiner. Those invigilating the examination need to be given clear instructions to do so. A worrying number of candidates failed to submit their notes for task 1. In some cases this was the case for all candidates in a centre. It was not clear whether this task had been completed or not. Failure to complete task 1 puts candidates at a significant disadvantage when answering section A of the papers.

Centres are reminded that the work submitted in response to the tasks must be each candidate's own unaided work. It is the centre's responsibility to ensure that the work is carried out in conditions that allow the teacher to confirm this is the case. It should not, for example, be given as homework. Care is needed to ensure that candidates do not share electronic files and that teachers do not provide too much direction when helping candidates to understand what they have to do. Some diagrams will inevitably be similar if they are drawn correctly. However, if candidates produce these individually, there will be subtle differences in the length of lines, positioning of items etc. Whilst they must not mark the work, deadlines for handing in the work should be set so that there is time for the teacher to check the work before signing the Authentication Statement.

All centres should by now be aware of the Joint Council ruling regarding centre authentication of coursework. This applies to both the pre-release tasks in the examined units and the centre assessed units. Whilst most centres submitted Centre Authentication Forms (CCS160) for the centre-assessed units, a significant percentage failed to include them in the script packets for the externally assessed unit. This should be done as a matter of course. Candidate Authentication Statements must be signed, but should be retained in the centre and **not** submitted to the examiner or moderator.

Please ensure that all pre-release work is attached to the question paper using a treasury tag. Please also discourage candidates from tying treasury tags in knots or wrapping them several times through the punched holes. It is essential that the examiner can separate the pre-release work from the examination paper easily to mark it.

It was pleasing to see that the majority of centres had used the correct marking grids for G048, as there were significant differences in the way this unit is assessed compared with previous sessions, with the total now being out of 50, rather than 100. This reduced some of the inaccuracies in marking that used to occur but, disappointingly, many centres' marks still needed to be adjusted.

As with G048, most coursework units were submitted with the correct version of the unit recording sheet attached. However, what was less clear was whether the work had actually been re-assessed against the new criteria when it was being re-submitted or whether marks had simply been transferred to the new sheets. The scaling applied in some cases suggested the latter might have been the case. Centres are reminded that, as the specification has only been 'tweaked' rather than fully redeveloped, there is no changeover year and **all** marks submitted **must** be as a result of assessment against the **new** versions of the assessment evidence grids, even if candidates are resubmitting a unit. It is recommended that centres destroy all previous versions of the unit recording sheets.

Whilst most work submitted for moderation was of an appropriate standard, the standard of some work at AS level was more appropriate to GCSE and the standard of some work at A2 was more appropriate to AS level. Centres need to ensure that the depth and breadth of the work submitted is appropriate for an A level qualification.

There has been a worrying increase over the last few sessions of instances of plagiarism in coursework portfolios, be this copying and pasting material from websites or copying printed material word-for-word. Candidates need to be taught the difference between using material from websites and other sources to inform their responses and simply copying it. They also need to be taught how to quote existing sources and how to reference them properly. Providing a reference should not be seen as a means of making it acceptable to copy large amounts of material and teachers need to ensure that marks awarded reflect the candidates' own work.

Although there were mitigating circumstances this session due to the snow, the importance of centres getting marks to the moderator by the deadline cannot be over-emphasised. Failure to do so may result in delays in the publication of candidates' results. If there are **10 or fewer** candidates entered, **all the work** must be sent to the moderator with the MS1. Prompt submission of the work requested and responses to other correspondence such as clerical error letters is also vital.

The importance of a fully and accurately completed unit recording sheet cannot be over-emphasised. Moderators must be able to match the work to the mark on the MS1, so both candidate name and number should be completed. It is also vital that the total mark is indicated, that it correctly totals the individual task marks and that the total on the unit recording sheet and the MS1 match.

As with pre-release tasks for examined units, plastic pockets, folders and particularly ring-binders should not be used to send unit portfolios. Work should be hole-punched and secured with treasury tags.

Principal Moderator's Report GCE Applied ICT

General Comments

This session was the first where work was assessed and moderated against the new assessment evidence grids. All work should have been assessed against these new grids, including that of candidates resubmitting from previous sessions. Of the work seen, only a very small minority had used the incorrect unit recording sheets. These were returned to centres for reassessment against the correct assessment criteria. However, there was evidence to suggest that some centres had simply transferred the previous marks to the new unit recording sheet without taking account of the new criteria. Where these centres were moderated, significant scaling was applied, as there are additional requirements for all units. Centres are advised to destroy previous versions of the unit recording sheets and reassess work against the new grids that can be downloaded from the OCR website.

Another significant change this session was the introduction of the OCR Repository for submitting work to the moderator. The main effect of this change that caught a number of centres out was the change in the component codes. The component code 01 is now for units submitted via the OCR Repository, while 02 is for postal submission. Of those centres that entered candidates using the 01 component code, only a very small number actually intended to submit work via the Repository, with the vast majority of the work arriving with the moderator by post. Please ensure that the correct component code is used for all future sessions. This session OCR has not charged centres for changes to entries due to entering the wrong component code; this may not be the case in future sessions, so centres using the wrong code may find they have made an expensive error.

Due to the fact that this qualification was written and amended with paper based evidence in mind, centres need to think carefully before selecting to submit work via the Repository. It should simply be treated as an electronic post box, rather than a means to provide moderators with access to multimedia, spreadsheet and other files that cannot be easily evidenced in hard copy format. Centres should, therefore, ensure that all the evidence is available to moderators in exactly the same way as they would if sending hard copies by post. When submitting work via the Repository, please ensure that you use the smallest file size possible and that a single task is not split between a number of files. Also, if paper-based work is scanned for uploading, please ensure that pages all appear the same way up. Where work has been assessed on screen, so that annotation of the work is not possible, please include a commentary with page numbers explaining the assessment decisions made.

Although a higher proportion of accredited centres were randomly sampled, as in previous sessions, only a percentage of work was moderated. The standard of some of the work submitted was acceptable and some was of a high standard but much was not. Of the work seen, more was scaled than was not, with 70% or more of moderated centres scaled for some units, including a number with significant scaling factors. Worryingly, it was necessary to adjust the marks of a similar proportion of the accredited centres that were randomly sampled. Assessors in accredited centres need to ensure that they check the required standards and apply these standards when assessing work. A number of centres have benefitted by attending INSET. Accredited centres are reminded that their work may get called for moderation as part of the random sample. A letter is sent to selected centres shortly before the moderation session and centres are urged to take note of this and act accordingly.

There were several instances of plagiarism again this session, with some candidates simply copying material from books, websites or other sources, or copying from each other. Candidates need to be taught how to use information to inform their own work, when it is appropriate to quote a source and to what extent and how to cite and reference the sources they use. They also need to recognise that, even if they have referenced the source, producing work that is substantially copied from books and websites does not demonstrate their understanding and is unlikely to gain marks. Centres should make the consequences of plagiarism clear to candidates and be vigilant in ensuring that instances of plagiarism by candidates are identified. Centres also need to ensure that there is enough scope in the assignments provided to candidates for the work produced to be individual. If the assignment brief is too tightly defined, it becomes inevitable that the work produced by all candidates will be very similar.

The importance of meeting deadlines for the submission of mark sheets cannot be over emphasised. The moderation window is not very long and failure to submit marks on time causes delays to the whole process. Centres are also reminded of the need to submit the requested portfolios promptly on receipt of the sample request. Whilst the weather at the beginning of the moderation session did cause problems, it was being used as an excuse by some centres for far too long and by centres in areas of the country that were not badly affected.

Apart from the entry errors relating to the component code, moderation was hampered again this session by the number of inaccuracies in recording marks on the mark sheets and other administration issues. For moderation to progress smoothly the task marks on the unit recording sheet must be added correctly, the total recorded in the box provided and this total must be transferred accurately to the MS1 mark sheet. If the marks are changed through internal moderation, or additional work being submitted by candidates before the mark sheets are completed, please ensure that both the individual task marks and the total are changed and that it is clear which the final marks are. Centres are reminded that, once marks are recorded on the MS1 and submitted, candidates **must not** have access to the work to make further amendments until after the results are issued.

It is also vital that the moderator can read the marks awarded on the MS1 to select a representative sample. Changes made on the top copy are not always readable on the moderator's copy, resulting in delays while these are clarified. When centres use electronic methods to submit marks to OCR, a printed copy of the marks submitted must be sent to the moderator. Even if the centre has selected to use the OCR Repository for submission of work, a hard copy of the marks must be posted to the moderator, either on a MS1 or as a printout from Interchange or EDI.

As is often the case in January, there were some centres where all candidates entered had been withdrawn. Where centres have withdrawn all candidates for a unit or units, it is vital that the moderator is made aware of this, either by sending the MS1s with the candidates marked as absent, or by sending a note letting the moderator know the candidate(s) have been withdrawn. If moderator address labels have been sent to the centre, the moderator will be expecting mark sheets from the centre and is required to chase the centre if these do not arrive. This can waste valuable time, especially when there is no work to moderate.

Similarly, centres are reminded that, where there are **10 or fewer** candidates, **all** the candidates' work **must** be sent to the moderator with the MS1 by the deadline. However, where **more than 10** candidates are entered, please do **not** send the work with the MS1. The moderator will request the 10 they want to see on receipt of the MS1.

Centres are also reminded of the need to complete and include Centre Authentication forms (CCS160) with the work. Centres submitting work electronically can either upload the CCS160 into the administration area or send a hard copy to the moderator with the mark sheets. The Joint Council has indicated that centres who fail to authenticate a coursework unit will not receive marks for that unit. Only one form per unit is required – it is not necessary to attach a form to each candidate's work. Also, whilst candidates must sign a Candidate Authentication form, these should be kept securely in the centre and not submitted with the work.

In many cases unit recording sheets had been completed thoroughly. There were helpful comments as to why a particular mark had been awarded and page numbers to direct the moderator to the evidence. However, a significant number of centres had included little comment and no page referencing. This essentially means that the work has to be re-assessed, rather than moderated, and the moderator may not be able to locate all the evidence claimed, resulting in scaling. Centres are also encouraged to annotate the work to indicate where there is evidence for a particular task and mark band. A simple ‘a3’ in the margin, to indicate there is evidence for task a, mark band 3, is very helpful, as are comments to indicate where different parts of a task have been evidenced.

Pages should be numbered uniquely from the start to the end of the portfolio, even if this is done by hand when the work is finally assembled. Representative page numbers on the unit recording sheet are more helpful than attempting to indicate every page that contributes to the evidence.

Some work was very poorly organised, making the moderation process more difficult. Candidates need to be taught how to assemble a portfolio, rather than merely collect together a number of different pieces of work for assessment. They should be encouraged to organise the work in a logical order, use suitable section headings and to include a contents page. However, it is not necessary to scan in hand-drawn designs unless the work is to be uploaded to the Repository. When these are drawn in pencil, the scanned image is too faint to be read. Remember, the moderator is checking the content of such designs. It is far better to simply include the original versions. The volume of work submitted should also be considered. Portfolios that are hundreds of pages long are counter-productive, as it makes it more difficult to locate the evidence required. It is the quality, rather than the quantity, of the work that is being assessed and candidates need to be selective about what they include.

Although most centres are using treasury tags or other suitable methods to secure the work sent, plastic pockets, plastic folders and occasionally ring binders are still being used by some centres. These should be avoided.

Comments on Individual Units

G040 – Using ICT to communicate

Although most centres had assessed this unit accurately, there was considerable variation in the quality of the work seen. Some was of a very high standard, while some was little better than would be expected at GCSE level.

Some centres continue to provide assignments that require candidates to create standard business documents such as letters, invoices, memos and agendas. These do not give candidates sufficient opportunities to demonstrate their abilities to use the range of software, facilities and media required for this unit. The banner of the assessment evidence grid requires that the six created communications ‘would be communicated by different methods’. We would, for example, expect to see screen-based communications such as slide presentations and web-based communications such as web pages or blogs.

Where candidates have not created all six of the required communications, they can still be awarded marks in task b. However, the mark awarded is likely to be significantly lower than the quality of those communications created would suggest.

Some of the unit portfolios produced for this unit were very extensive. This can be counterproductive as it becomes difficult for the moderator to locate the required evidence. Unless the comparative report for task a is being used as one of the six original communications, which is not recommended, it is not necessary to include planning or draft copies of this document, neither are draft copies of evaluations required. Draft copies of other documents should be carefully selected, labelled and annotated to show development. Two or three drafts should be sufficient. Also, whilst the collection and analysis of existing documents to inform the design of the candidates' documents is good teaching practice, these do not need to be included in the portfolio. However, the documents compared in task a must be included in the portfolio, so that the moderator can judge the accuracy of the descriptions given.

Task a
This task requires a report comparing two types of document from each of three organisations, for example a letter and a brochure from each. Care is needed in the choice of documents. As candidates have to identify good and bad points about writing style, it is important that documents have some content. Blank letterheads, business cards etc are not suitable documents for comparison. The two types of document should also be sufficiently distinct. Comparing two different pages of websites or two types of leaflet is not acceptable. Candidates can still be awarded some marks if they fail to describe all six documents, although the mark will need to be reduced to take account of this.

Other than when discussing house style, candidates should be comparing the similar documents from the three organisations, i.e. comparing like with like. The new assessment grid places much more emphasis on comparison and this aspect was often limited. Candidates tend to deal with each document separately and then include a brief comparison of the three similar documents at the end. This can make the report very lengthy and candidates tend to 'run out of steam'. Centres may want to consider encouraging candidates to discuss all three similar items together, so that the whole report is a comparison, rather than this being an after thought. When discussing house style, they should be considering common features used in the two documents from each organisation.

There continues to be some confusion between writing style and text style. Candidates need to consider the type of language used, i.e. whether it is formal or informal, informative, persuasive etc, not whether it is emboldened or in too small a font size.

Some centres were generous in awarding marks for this task. Most of the work seen showed that the marks were more suitable for the assessment criteria listed for mark band 2 than the mark band 3 marks awarded. This was largely due to a lack of the critical analysis of documents expected for mark band 3. Also, centres did not take into account the new requirements for mark band 3 of explaining suggested improvements to the documents in relation to their purpose. Similarly, a mark in mark band 2 was sometimes awarded when there was a lack of detail in the descriptions of purpose and layout of the collected documents or where consideration of writing style, suitability for purpose, house style or suggested improvements was missing. All are now required for the award of mark band 2.

Centres are reminded that the quality of the candidates' written communication is assessed through this task. In some cases, too little account was taken of poor spelling, punctuation and grammar when deciding what mark to award. It is not sufficient for candidates to simply run the spell checker, although this should be used as a matter of course, they should also proofread the work and correct errors not identified or those of punctuation or grammar.

Task b
Tasks bi to iv should be assessed across all six communications created. To achieve the top of a mark band, candidates must demonstrate the requirements of that mark band consistently across all of the six communications. Too often, candidates had produced good planning and drafting, good quality final communications or detailed evaluations for a few communications but had 'gone off the boil' and failed to demonstrate the required consistency. Methods of communication must be the subject of one of the six communications. It should, therefore, be planned, drafted and evaluated as well as the other five.

It is not necessary for candidates to produce excessive documentation to explain how each document has been created, although a few screen prints showing evidence of using templates, master slides, other automated features and sound or video clips would make the moderation of task biii easier.

Task bi
There are several aspects to this task; planning, development of drafts, accuracy checking and listing of sources. Lack of any of these aspects should reduce the mark awarded significantly. Marks were often awarded leniently for this task, with mark band 2 being awarded when not all communications had been planned and mark band 3, when planning was not sufficiently or consistently detailed. Annotation was often limited to proof reading and correction of errors in the text or was not applied to all six communications and, although more detailed bibliographies were evident, these did not list all the sources used.

Planning needs to be included for most communications for mark band 1. For mark band 2, all six communications must be planned, with detailed planning for some. For mark band 3 the planning must be detailed for all six communications. Detailed planning does not mean that candidates produce a word-for-word, hand-written version of what they intend to produce. Rather, candidates should consider the layout, content and aspects such as font style and colour schemes. This may include some research into the layout and content of similar communications and the selection of images and text they plan to adapt and use as well as a hand-drawn or computer generated design of the layout to be used. Only one such design is required for each communication. All subsequent drafts should be computer generated.

It is not sufficient to merely include draft copies. These need to be annotated to show what the candidate **intends to do** to improve them, not what they have done. This should include improvements to the layout and positioning of elements as well as proof reading the text. For mark band 2 annotation should show how candidates developed each communication to achieve a consistent style and organised a variety of different types of information in a coherent and easy-to-read way. For mark band 3, they need to show this development in detail. Annotated drafts should be included for all documents if a mark in mark band 2 or above is awarded. In some cases, candidates had provided step by step guides with screen prints to show how the documents were created. This is not what is required and does not fulfil the requirement for annotated draft copies.

As indicated above, there has been some improvement in the listing of sources, with many now including the required detail by including at least title, author, publisher and date published for printed material and, for web-based material, exact URL, date accessed, author (if known) and date last updated (if known). However, this was not universal and it was also noted that, in many cases, the lists clearly did not include all the sources used. This is a mark band 2 requirement.

Task bii
Although it is not necessary to include extensive before and after printouts to show how information was located and adapted, a few selected screen prints along with annotation of the work to indicate which information had been located and how it had been adapted would do much to aid the moderation process. However, where the final copy is annotated in this way, it would be helpful if a ‘clean’ final copy is also included so that the moderator can better judge its quality.

To reach mark band 3, candidates must produce six consistently professional standard communications. Whilst some very high quality communications were seen, some were quite poor but still awarded marks in this mark band. For maximum marks all six communications should be of a very high standard. It was rare that this was the case. In some cases, mark band 3 was awarded for communications that were of GCSE standard or that contained errors.

Task biii
Again, annotation would help to show the moderator where the automated features required by mark band 3 have been used. Alternatively, a few well chosen screen shots would help the moderator to confirm that automation had been used.

Centres are reminded that the key terms in this task are ‘appropriate use’, ‘suit the purpose’ and ‘improve impact’. Candidates should not be awarded mark band 3 simply because they have used automated features. In addition, to achieve this mark band, candidates need to use a wide range of graphics and other media throughout the portfolio that are both appropriate and improve the impact of the communications.

It should be noted that mark band 2 now requires appropriate use of software to automate aspects of the communications, such as creating templates; mark band 3 now requires the appropriate use of a range of different software facilities to automate aspects of the communication. This might include the use of mail merge, software generated contents pages and indices and the use of styles as well as templates and master slide layouts.

As mentioned in the introductory paragraphs for this unit, the types of communication candidates are asked to produce will do much to aid or limit them in achieving marks in this task. More varied communications, such as multimedia presentations, web pages or newsletters, will give candidates greater opportunities to achieve higher mark bands. Assessors should consider the use of detailed witness statements to evidence the appropriate use of sound and video.

Task biv

Candidates need to evaluate the communications they produce and their own roles and actions. The latter aspect was frequently missing. Mark band 3 requires candidates to carry out ongoing evaluation of their draft communications. Too often a mark in this mark band was awarded when the candidate had only evaluated the final versions of their communications or where they had simply described how the drafts had been developed. Candidates need to describe the strengths and weaknesses of each draft and their own performance in detail to achieve high marks in this task.

Task bv

This task should form the content of one of the six communications created, rather than being addressed as a separate entity. It requires an explanation of the methods of communication listed on page 15 of the unit specification. The methods of communication to be included appear in the second bullet list on this page, while the technologies are listed at the bottom of the page. To achieve mark band 1, candidates must describe at least four of the methods listed, while to achieve mark bands 2 or 3, candidates must describe at least six of the communication methods listed. For mark band 3, the descriptions must be detailed and supported by explanations of how each is used and the technology used to support each. There was some confusion between types of information and communication methods. Technologies were not written about in enough depth. When writing about a communication method candidate should then go on to explain what technologies support it rather than just listing them at the end of the work. For example on-screen methods of communication are supported by touch screens or SMS is supported by mobile phones. For mark band 3, candidates need to explain how these technologies work. They should also be discussing the advantages and disadvantages of each communication method.

The task in the banner has been reworded to discourage the use of a slide presentation for this task but many candidates still used this method. Candidates are unlikely to be able to provide the level of detail required by mark band 3 in a slide presentation alone. Those that attempted to do so tended to lose marks in task bii because they crammed too much text onto each slide. The required detail could be provided in presenter notes to accompany the presentation. However, these need to expand on the information shown on the slide, not simply repeat it. Candidates might find it easier to provide the detail required by mark band 3 if they presented the information in a report or newsletter, rather than a slide presentation. The best work for this task was seen when candidates had produced a report, rather than a PowerPoint presentation. This also provides opportunities for candidates to use some of the automated features required for mark band 3 of task bii, such as the user of styles, contents lists and indices.

Although candidates should be encouraged to research the methods of communication and the technologies which support them - including their relative advantages and disadvantages – they should not simply copy and paste articles from the internet. Note taking and rewriting text from a number of sources into the candidate's own factual account should be promoted, as these are vital study skills which candidates will require at university. The sources used should also be referenced properly.

G042 – ICT solutions for individuals and society

This unit has been rearranged into a more logical order for candidates carrying out the work and assessors marking it. The report on availability of electronic information has been moved to the end of the unit as it is an independent entity. Tasks a-f are best addressed as an investigation to solve a problem or hypothesis.

The unit appeared to be problematic for most centres. Most of the centres moderated were scaled as they had been generous with the marks awarded. Some centres had not encouraged candidates to work with a single theme for the unit. The use of small screen captures made it difficult to determine the accuracy of the evidence produced in some instances.

Task a

The marking of this task was often lenient, largely due to the incorrect use of advanced search facilities and logical operators. It was common to see the same words in several different fields of the advanced search facility, the use of logical operators within these fields and/or a single word in the 'with any of these words' field. Similarly, 'logical' operators were shown in lower case or a space was left between a + or – sign and the word that was required/not required in the search string. NOT, rather than – was often used in Google, with the first result more often than not showing the very word that was being excluded. There was also limited use seen of other operators, such as ~ or define:. Google and other search engines provide useful help on the use of operators and candidates should be encouraged to follow this guidance.

Some work was very poorly structured, making it difficult to determine what searches candidates had carried out and what information they had found. Screen shots were often too small for the moderator to read the search criterion entered or the screen shot did not include the criterion. In some cases, candidates were using a totally different search topic to 'test' which search engine is best before using one for their investigation. This is not appropriate as the results will be subject specific and the search engine they find the best in their testing may not be the best for the subject of the investigation.

Candidates need to be systematic, starting by clearly defining what they are looking for and then initially using simple searches, progressing to the use of the advanced search facilities and then building their own search strings using logical operators. Whilst it is not necessary to print out and include all the information found, candidates do need to indicate the results obtained from each search and to compare the results of similar searches using different search engines. This refinement of searching will also allow candidates to address the criteria for mark band 3 of task g.

To reach mark band 2 the advanced search facilities of at least three search engines must be used, while mark band 3 requires candidates to write their own search strings using logical and other operators in the standard search box of the **chosen** search engine. Many candidates had approached this task 'back to front' by using logical operators and then going back to using advanced search facilities. By doing so, candidates had made extra work for themselves, as they had attempted to use operators in all three search engines, rather than just the one they had selected as the best. The intention was that candidates use the advanced search facilities and discover the functions they offer before realising that similar searches can be carried out by using logical operators in the standard search bar. In some cases, mark band 3 had been awarded when it was clear that the logical operators were those included by the search engine as a result of carrying out an advanced search.

Mark band 2 requires a comparison of results to select the most appropriate search engine as well as the use of advanced searches, while mark band 3 requires a detailed and accurate comparison of results obtained and justification of the most appropriate search engine. Comparison was often limited to the number of hits, with little consideration of the relevance of the results.

Task b
This task requires evidence of the use of a large website and an online database to find required information. It would be expected that two separate websites are used for this task. The large website will offer a range of facilities for finding required information, such as navigation bars, hotspots or alphabetic lists and a simple internal search facility. An online database will provide an advanced search facility that enables a range of complex searches to be carried out. Candidates should not attempt to use logical operators in the standard search box of an internal search engine, as it is very unlikely that these operators will be recognised and acted upon.

The information required must be identified and candidates then need to provide evidence of how they located it. Candidates should include screen shot evidence of how they found the required information. A witness statement may support candidate produced evidence but should not replace it.

Whilst there was often good evidence to meet the mark band 2 criteria, there was rarely evidence that candidates had carried out a range of complex searches of the online database, as required by mark band 3, or that the information found demonstrably met their requirements. Consequently, the mark awarded by the centre was often somewhat generous.

Task c
This task requires evidence of complex searches involving both relational (= > < etc) and logical (AND, OR, NOT) operators. For mark band 3, other types of query, such as parameter queries or those involving wildcards should also be evidenced (see page 31 of the unit specification). As with some of the other tasks in this unit, screen prints to show the search criteria used must be large enough for the moderator to read without resorting to a magnifying glass!

It is not sufficient to use a table in a spreadsheet as a local database, as it is not then possible to easily demonstrate the required complex searches or to present the results as a database report. Whilst logical and relational operators can be used in custom filters in a spreadsheet package, candidates are limited to mark band 1 due to the lack of reporting facilities – a pivot table, for example, does not meet this requirement.

Some care is needed in developing local databases for candidates to search. These need to contain sufficient data to make searches meaningful. It is not necessary for candidates to create their own local database. Indeed, when they do, they tend to concentrate on this aspect, rather than the required search techniques. Candidates must include screen print evidence of the queries they set up in design view. For higher marks we would expect to see a number of different complex searches. Reports produced to achieve mark band 3 must be fit for purpose, well-presented and must be printed out, rather than simply screen printed. For maximum marks, the database reports produced must have meaningful titles and suitable layouts to ensure the data being presented is visible and understandable. Rather than simply using the report wizard, candidates should access reports in design view so that they can adjust column widths and the alignment of data, and edit titles and column headings so that it is clear what the report shows.

Task d
Although some good spreadsheet evidence was seen, many did not demonstrate the use of sufficiently complex formulae and functions. The additional guidance on page 158 of the specification provides guidance on the types of functions and processing expected for mark bands 2 and 3. Candidates must evidence the functions and formulae they use by formula printouts or other suitable methods. They also need to show **evidence** of testing, not just a table

stating that the results were ‘as expected’. The testing should show that formulae and functions return the expected result, not just that macro buttons work. This is a task where candidates would benefit from guidance on how to present their evidence. Too often it was difficult to determine what the spreadsheet was designed to do, how it appeared on screen or how the various sheets were linked, if at all. Macros need to do more than simply move from sheet to sheet. The mark band 2 criterion requires macros to speed up the input of data and the production of results.

Task e

This task requires candidates to draw all the information they have found together to answer the investigation question. As such it should be a stand-alone document. The term presentation should be taken in its widest sense, so reports, slide presentations or even web-pages are all acceptable. The task cannot be assessed across the whole portfolio.

The presentation should present what the candidate has found out, not how they have gone about finding the information, which is the subject of the rest of the portfolio. Where the presentation simply repeated the methods used, with screen prints of searches and how the spreadsheet was created moderators were instructed to limit the mark to mark band 1. In some cases the headings were the types of information listed in the unit specification. Whilst this may ensure that the required number are included, it will not produce a well thought out presentation that presents the investigation results coherently.

It should be noted that there is no difference between marks bands 2 and 3 in the number of types of information or sources used; the difference is in the quality and coherence of the presentation. For mark band 3, the results should address the problem or hypothesis and present the findings in a logical order, with text, images, tables, charts and other types of information combined in a well-balanced and coherent way. Where candidates have not addressed an individual investigation, it becomes difficult for them to produce the evidence required for this task. Also, if candidates have not listed their sources it is difficult to award any marks for this task as it is impossible to ascertain how many they have used. Mark band 3 requires a detailed and correctly structured bibliography. The same details are required here as for task bi in unit 1. This should relate specifically to the presentation of results and not the whole portfolio.

Task f

Evaluations for this unit were weak. It is the methods used to find information and present results that should be evaluated, rather than the outcome or a task by task evaluation. Too often, evaluations were simply descriptions of what candidates had done. For mark band 3, this evaluation should be ongoing rather than just at the end. Some evidence may appear in task a, but this must be clearly identified and cross-referenced if credit is given. Even when candidates had provided ongoing evaluation of their search methods, ongoing evaluation of and refinements to the presentation of results was often omitted.

Task g

There was still some misunderstanding of the requirements of this task. It requires discussion of the impact of the availability of electronic information, not the impact of ICT in general or the advantages and disadvantages of the internet. The changes to the grid makes it clearer that all aspects need to be covered to achieve mark band 3, so there was less opportunity for candidates to address only the additional mark band 3 requirements.

Candidates tended to describe how the internet is used for shopping, banking and other tasks, rather than the impact on the people using these services. The impact on society for mark band 2 was rarely more than a generalisation of the material discussed in relation to themselves and their family. Mark band 3 requires detailed explanations of the methods organisations now use to communicate with individuals and society and how this affects people who do not have or want access to electronic communication. Whilst candidates could often identify those who don’t have access and why this is so, explanation of the impact this has was often limited. There continues to be an assumption that the older generation do not want access to electronic information. Whilst this may be true for some, for an increasing number of 'silver surfers' it is far from the case.

As with task a in G040, insufficient account was taken of poor spelling, grammar and punctuation when awarding marks for this task. A few centres had required candidates to concentrate on one particular website or method of using electronic information. This does not meet the requirements and limits candidates' discussion. A more general report is required. Similarly, detailed descriptions of different public service websites and how they might be used does not fulfil the requirements, although this may provide a good teaching strategy.

G043 – System specification and configuration

Tasks a and b are two separate stages of the specification process and cannot be interwoven. Task a requires candidates to investigate and describe in detail what the user wants to do with the system they will specify. This should include detailed descriptions of all tasks together with details of what data will be input and how the output will be presented. This should include consideration of the **types** of input and output devices and the software required. For maximum marks in task a, all types of input and required output should be included in detailed descriptions of all the required tasks and types of hardware and software identified to meet all of the required tasks. This task was often leniently assessed. It is vital that the user requirements are clearly understood, so that candidates can evaluate how well their specification meets these requirements, as required by task g.

In task b, candidates should use these detailed requirements to specify a system that can carry them out. The hardware specification should be complete – a processor without a motherboard or tower unit is not much use; it should be up-to-date and include full details of each component being recommended. However, candidates should be discouraged from simply copying and pasting the technical specification from a website. Rather, they should indicate the size, speed etc and why this particular component meets the user requirements. As well as specifying the hardware and software required, candidates must include the specification of any required configuration and designs of toolbars, templates, menus and macros. All of this should form a stand-alone document that could be presented to the user for their approval. For mark band 3 the specification must fully meet the defined user requirements and include detailed designs that fully meet user needs and that would improve the efficiency and effectiveness of the user. Too often high marks were awarded when the specification lacked detail, the configuration requirements had been omitted or the designs did not demonstrably improve efficiency or effectiveness.

Photographic and/or screen print evidence backed up by a detailed, signed and dated observation record would improve the evidence for the practical tasks in task c. However, to be of value, observation records need to include individual comments on the tasks each candidate has performed and need to reflect the mark awarded. The evidence must include configuration as well as installation of both an operating system and applications software. Whilst it is recognised that practical activities may be limited by the equipment available in the centre and, consequently, may not match the system specified in task b, candidates still need to create a working system that matches the user requirements as closely as possible. Candidates must include a test specification as well as evidence of testing to go beyond mark band 1. To achieve mark band 3, the testing must be thorough and there should be clear evidence of how candidates overcame problems found as a result of testing. Testing seen often lacked the detail required for the marks awarded.

Similarly, candidates need to include clear evidence of creating templates, toolbars, menus and macros such as annotated screen prints or printouts. Any screen prints must be large enough for the content to be read. At least one each of all four items must be evidenced to go beyond mark band 1, including evidence of testing. For mark band 3, more than one of each item must be installed and tested; the installed templates, toolbars, menus and macros must be those designed by the candidate and must demonstrably improve the efficiency of the user. An explanation of how the user's efficiency would be improved would be helpful here. In several cases, mark band 3 was awarded when only one of each item had been installed and tested.

Task e is best evidenced by a report or handbook for the user on health and safety and security issues. It should cover the content of the Safety and security section on page 39 of the unit specification. While most ergonomic issues were covered, management issues were rarely covered in sufficient detail. As with task a in G040, insufficient account was taken of poor spelling, grammar and punctuation when awarding marks for this task.

More centres are correctly addressing task f, although a little more detail is required. Centres should refer to the Basics of software development section on page 39 of the unit specification. However, some candidates are still including descriptions of the stages of the Systems Life Cycle. This is not acceptable.

Evaluation was weak for task g. Candidates must evaluate both their specifications and the methods they used for installation, configuration and testing. It might help if these were treated as two separate evaluations. The first could appear immediately after the specification and consider how well it meets the needs of the user as identified in task a. For mark band 3, candidates need to show that they have identified strengths and weaknesses in their initial specification and refined it to meet the user's needs more closely. Too often, candidates evaluated the method used to produce and present the specification, rather than how well it met the user's needs. This may have been because these needs had not been defined sufficiently clearly in task a. The second evaluation could be produced immediately after completing the practical tasks and consider how the candidate went about them, any problems that arose, how these were overcome and, for mark band 3, how they might approach a similar task in the future.

G044 – Problem solving using ICT
There were insufficient entries for this unit for generalised comments to be made.

G045 – Software development – design
Care is needed in tasks a, b and c that candidates do not simply copy published material, either from text books or websites. Task di was usually quite well attempted with candidates suggesting more than one solution for mark band 2. However, there was rarely sufficient consideration of the feasibility of these solutions or justification of the chosen solution for a mark in mark band 3. Although designs were produced for task dii, these were not always related sufficiently to the defined user requirement and there was insufficient consideration of standard design concepts. To move beyond mark band 1 in tasks e and f, the diagrams produced must be correct, if simple, and documentation must be complete. Too often high marks had been awarded when there were errors in the DFDs and ERDs and when documentation was either incomplete or inaccurate. Candidates tended to produce a good evaluation of the solution or their own performance for task g but rarely both.

G046 – Communicating using computers
Although the work submitted for this unit was generally appropriate, there was some lenient assessment, with the majority of centres moderated being scaled.

Suitable organisations had been investigated for task a, although candidates did better when they investigated a real organisation, such as their school/college, rather than using case study material. However, whilst it is clearly convenient to base this task on the centre's use of the internet and intranet, candidates should be given the opportunity to investigate other organisations' use of these facilities where possible. The organisations' objectives were rarely stated overtly. Candidates must describe advantages and disadvantages of both internet and intranet use, as well as suggesting several improvements to both to achieve mark band 2. To achieve mark band 3 candidates must justify the improvements they suggest, this was rarely seen. Some candidates had confused an intranet with a shared network drive, particularly when describing their own centre's use. The two are not synonymous and candidates must be taught the distinction between them. It should also be noted that it is the use of the internet and intranet that is to be evaluated, not the organisation's website and the structure and layout of its intranet.

Centres should refer to the internet websites section on page 54 of the specification to identify what is meant by internet technologies for tasks bi and di. Discussion of HTML is not sufficient. Mark band 2 of task bi now requires candidates to describe the use of at least two internet technologies in the nominated website. They must identify where in the website these are used, rather than simply providing a generic description. In mark band 2, as well as explaining the use of the two internet technologies, candidates must analyse how well the purpose of the website is met. This was often overlooked when awarding marks. In task bii, marks were awarded somewhat leniently. Candidates need to do more than simply identify that a particular section of code produces a table or a hyperlink to reach mark band 3. They should explain how the various tags are used and how they translate into the features seen in the browser. Candidates do not need to include the entire code for each of the three pages. They could include a screen print of the page as shown in the browser along with **a number** of relevant sections of the code that they can then explain in relation to the browser image. However, care is needed that a sufficient range of different features have been explained. The web pages annotated should be part of the website discussed in task bi, rather than an entirely different site or one they have created.

Task c, was often the least well evidenced. Candidates tended only to consider the costs of hosting the site online. Frequently, bandwidth was given little consideration and candidates failed to describe a range of connection methods, hardware and software. The hardware and software should be that required to produce the website and host it locally. This will include a web server and software, as well as web design software. For mark band 3 we would expect to see some calculation of the likely bandwidth requirements and justification of the chosen ISP in relation to technical requirements. As in other units, insufficient account was taken of poor spelling, punctuation and grammar. This task should be a single coherent report, rather than a number of disparate sections including material downloaded from websites.

More marks are now available for the design and creation of a web page in task di. This should not simply be the creation of a single web page in isolation. Whilst they are only required to design and create a single page, candidates should plan the website it will be part of, at least in outline. At mark band 1, candidates must demonstrate the use of at least one internet technology and they must identify at least two different internet technologies they have used in their web page to achieve mark band 2. Evidence that the site has been uploaded is required for mark band 3, together with a high quality web page and explanation of the internet technologies used in it. Where marking was lenient it was because there was insufficient evidence of the internet technologies used or the same technology had been used twice. Task dii is about evaluating how candidates approached the development and uploading of the web page, rather than the web page produced. This was accurately assessed in most cases.

It is not possible to cross reference the descriptions of hardware, software etc for task e to those for task c, as task c relates to hosting a website, while this task relates to simply accessing the internet and sending and receiving emails. Candidates are now only required to install one piece of communication software. However, this is a requirement for all mark bands. Differentiation between the mark bands is in how well the installation is documented. For mark band 3, candidates should be producing detailed documentation that would enable someone else to install and configure the software. This should be separate from the evidence that they actually carried out the installation. A detailed witness statement is helpful to confirm the installation and configuration tasks. Care is needed as to what is considered communications software. Compression software, for example, is not communications software, although it may be beneficial to reduce the file size of attachments. Likewise, virus checking software, while essential on any computer connected to the internet, is not communications software. Also, simply configuring an email client that already exists on the system is not installation. There are many freely downloadable browsers, email clients and instant messaging applications that can be installed for this task. As with the installation, the differentiation in the browser configuration is in how well the process is explained and illustrated. The email part of the task requires increasingly complex handling of received emails, with the use of filters required at mark band 3. It was evident that much of the work seen this session had been produced in response to the previous assessment evidence grid, consequently there was more evidence required for some aspects with other aspects missing.

G047 – Introduction to programming
As with G046, much of the work seen for this unit appeared to have been originally produced based on the previous assessment evidence grid and adapted to meet the revised specification.

In task a, centres need to ensure that the program listing provided for candidates includes sufficient techniques for candidates to identify. Centres need to differentiate between the two parts of the task. Task ai requires candidates to identify the techniques, e.g. they should indicate where different constructs, such as selection or repetition, have been used, while task aii requires candidates to explain what these constructs do in relation to the program. For example, in the case of modularity, candidates should explain what a subroutine, function or procedure is designed to do, how it is defined and how and when it is called elsewhere in the program.

Task b now requires centres to provide candidates with designs for the programs that they will implement. There was no evidence of designs having been provided in any of the work seen. Centres may wish to look at the sample assignments provided on the OCR website to see what they should provide for candidates. Despite the lack of designs, most candidates had produced suitable programs for task b. However, the marking of all three sections of this task were often leniently assessed. In task bi, for the award of mark band 3, all of the techniques listed in the Program structure section on page 56 of the unit specification must have been used across the programs created, including those to improve the readability and maintainability of the programs. Techniques to improve readability and maintainability in particular were poorly evidenced. Similarly, in task bii, the purpose of the programming language used was rarely addressed and there was limited description of local and global variables.

Some centres had attempted to award marks for task ci based on the evaluation of the programs used. This is not appropriate. Task ci should discuss a range of programming languages other than the two candidates have used. Care is needed that this is not simply copied from Wikipedia or a similar source. Task cii was often leniently assessed. Apart from discussing the appropriateness of the languages used and analysing their experiences, for mark band 2, candidates need to suggest at least one improvement to each program and, for mark band 3, they need to give a valid reason for each improvement. There was limited evidence in the work seen.

H515/715: GCE Applied ICT (A2 units)

Introduction

The introduction to the report for the A2 units should be read in conjunction with the introduction to the AS reports as many, if not all, of the issues are common.

A small number of centres failed to detail their assessment decisions. All portfolios should have a fully completed Unit Recording Sheet (URS) with a comment to explain the marks awarded for each task. Page numbers should be completed on the URS. Due to the absence of any teacher annotation indicating the awarding of mark bands it was difficult to confirm in some cases that these had been awarded appropriately. Although annotation is not essential, its appropriate use is very helpful and is an example of best practice.

Centres are reminded of the importance of meeting the deadlines for the submission of marks to moderator and the board as well as the requirements to send the sample of coursework requested within the timeframe specified in the correspondence. The majority of centres met the deadlines this session.

Unit G049 Numerical Modelling Using Spreadsheets

For this unit candidates were required to produce:

- an analysis of a suitable user problem and a design specification that describes how they will solve it by numerical modelling;
- evidence of implementing their solution using suitable entry aids and processing facilities;
- a record of how they overcame their problems;
- a specification for testing their spreadsheet, and evidence of the results of these tests;
- technical documentation that explains how their spreadsheet works, and user documentation that explains how it is used;
- an evaluation of the effectiveness of their solution and their personal performance.

A small number of centres continue to fail to identify that the emphasis of this unit is on numerical modelling rather than data manipulation even though this has been fed back in every Principal Moderator report for this unit. However, it is pleasing to note that the proportion of centres in this category is lower than in previous sessions. The problem that the candidates attempted to solve must provide the opportunity for significant numerical processing. Using a spreadsheet to simply store and present information, e.g. database solutions that involve little or no data processing are not suitable for this unit.

The design specifications produced by a number of candidates lacked the necessary detail. At the simplest level, these must incorporate consideration of user requirements, data sources, processing to be carried out and output to be generated. More able candidates incorporated ideas for screen layouts, identification of spreadsheet layout, spreadsheet facilities to be utilised and considered how the numerical processing aspects of the solution met the user requirements. Candidates achieving high marks for task a must produce a specification that is detailed enough to enable a competent third party to implement it independently.

The solution implemented in task bi and task bii by some candidates showed clear evidence of the use of complex spreadsheet facilities, as listed on page 63 of the unit specification, as well as clear evidence of a range of spreadsheet functions appropriate to the solution of the problem. Some centres awarded high marks for task bii when there was little or no evidence of the use of specialised numerical processing functions and complex spreadsheet facilities; marks were adjusted accordingly. Some centres failed to recognise that function such as lookup functions were now part of the common built-in spreadsheet functions and not specialised built-in functions. Annotation of printouts or a commentary detailing the spreadsheet solution provided clear evidence of the use of the spreadsheet facilities and functions. This in turn provided evidence towards task c, the strategy for implementing the solution. Where no clear evidence could be found, often due to lack of annotation, marks were adjusted downwards as the moderator could not easily locate the use of the functions within the spreadsheet solution.

For task c, the evidence presented often lacked details of the problems encountered by the candidate whilst developing the spreadsheet solution and how these were surmounted. Testing the spreadsheet solution, in task d, was carried out poorly by the many candidates. There should be clear evidence of planning the testing to be performed. This should address testing functionality with the use of normal, abnormal and boundary data.

The technical and user documentation produced for task e need to be separate documents as they are for different readers. The technical documentation must be sufficiently detailed to allow somebody to maintain or amend the spreadsheet. In many cases the documentation provided would not allow this to happen.

A small number of candidates performed well in mark band 3 in task f. In some cases the evaluation was descriptive rather than critical, restricting marks that should have been awarded. Candidates must refer back to the initial requirements of the problem and, in order to access the higher mark bands, consider feedback from users and relate to the design specification.

G050 Interactive Multimedia Products

For this unit candidates were required to produce:

- a review of **two** non web-based commercially-produced interactive multimedia products, showing how their design influenced the design of the interactive multimedia product that they produce;
- detailed designs, of which one is chosen as the design for the final product;
- a multimedia product to meet the client's requirements;
- a detailed test plan;
- a detailed user guide;
- a review of both the interactive multimedia product that they produced and their personal performance.

A number of centres still need to give careful consideration to the software used to evidence this unit. Page 69 of the specification indicates the types of interaction that could be incorporated into the final product. Not all multimedia software will facilitate the majority of these. It was noticeable this session that more centres appeared to use more appropriate software for the production of the interactive multimedia product. The design of a website is not appropriate; candidates wishing to design websites should undertake G053 Developing and Creating Websites. The unit specification makes it clear that this should be a standalone product; task e requires evidence of the system requirements and how to install and use the product, none of which are fitting for a website.

In order to access the higher marks in task a, candidates must evaluate the commercial multimedia products, rather than describe them. There must also be a detailed explanation of how the product influenced the design of the product that the candidates produce. A number of candidates evaluated web-based multimedia products rather than non web-based multimedia products.

For task bi some candidates produced plans for completely different products; the requirement is to produce different designs for the same product. Content must be considered as part of the plan to access higher marks; some plans seen in this session contained very little indication of content.

Task bii required a critical analysis of the designs in order to access higher mark points, not just a description of the designs. Good and bad points of each design need to be identified and a reasoned argument presented to explain why the final design was chosen by the candidate and how it met the needs of the client.

Task ci and task cii required evidence of the use of a variety of ICT skills to produce a multimedia solution. The nature of these skills is identified on page 69 of the unit specification. Many candidates failed to identify how they had used their initiative to develop and extend their ICT skills to create a variety of elements to be used in the product. Candidates could annotate their evidence to explain how the skills have been used and the how the skills are aiding the development of the multimedia product. Task ciii required the candidate to bring together the various components into a complete solution. This is where the nature of the multimedia software may restrict the nature of the product developed. A small number of centres continue to allow candidates to create products that are mainly text and image based with little or no interaction.

The testing of the product for task d was carried out well by a minority of centres. The candidates needed to test not just the functionality of the product, but the fact that the product met the requirements of the design specification.

Task e required candidates to incorporate installation instructions as part of the user guide for the product. Candidates are encouraged to incorporate images within their user guide in order to clarify the steps within the user guide. The user guide needs to include details of the system specification for the product and details of how to install the product. Some candidates omitted to explain what the purpose of the multimedia presentation was.

For task f the candidates must critically analyse their solution in order to access the higher mark points. More able candidates provided evidence of obtaining feedback from users that tested the product, as well as providing clear evidence of linking the product to the design specification. Evidence for this task must also incorporate a critical analysis of the candidate's own performance to secure mark band 3.

G051 Publishing

For this unit candidates were required to produce:

- notes taken during an initial, and any subsequent, meeting with a client, negotiating and amending a brief for the production of a publishable version of a document;
- evidence of the drafting and production of a publishable version of their final document to meet the brief and, in doing so, will show that they can create and capture images, as well as import material from other packages, utilise object libraries such as clip art, and select and further develop images to meet the style and content of the final copy, as negotiated with the client;
- a publishable version of a document, of approximately ten A4 pages or the equivalent, that combines different types of information presented to the client for approval, together with a letter which correctly describes the final production stage and external factors which may affect completion of the final published document;
- an evaluation of both the layout and content of their final copy and their performance.

It is important that candidates address all parts of the unit rather than concentrate on the production of the CRC document; some candidates did not sufficiently document the processes involved.

The evidence of the meeting(s) with client varied greatly in evidence presented for task a. If the candidates cannot access real clients, then the teacher, or other suitable person, should act as the client. It is important that interim and final deadline dates are considered to move beyond mark band 1.

It is a requirement of mark band 3 in task bi that candidates explore different means of presenting the same information and use a comprehensive range of editing and manipulation tools. Some candidates were awarded marks in mark band 3 when there no evidence to support this.

Evidence for task bii and biii frequently lacked evidence of the design stage processes. To access marks in mark band 2 in task bii there must be explicit evidence to include the following:

- sketching different initial document designs;
- following housestyle;
- creating master page layouts;
- presenting page proofs;
- producing artwork sketches;
- setting text orientation;
- creating style sheets.

For task biii annotation of evidence generated enable candidates to access mark band 2, whereas accompanying explanation will enable candidates to access mark band 3.

Higher marks in task ci required clear evidence of using styles and attributes to produce a publishable version of the agreed design. The work of some candidates did not match the agreed design. Candidates are required to evidence editing a piece of imported text. This is best evidenced through careful annotation of the evidence as the evidence should be explicit rather than implicit. The letter produced for task cii lacked detail in the work of some candidates.

Task di and dii requires analysis of the CRC and how the solution was refined to meet the client's needs as well as an analysis of the candidate's performance. Candidates in mark band 3 will produce a critical analysis. There will be an evaluation, not a description, of the candidate's role in the development of the solution.

G052 Artwork and Imaging

For this unit candidates were required to produce:

- A portfolio of artwork samples produced to demonstrate a range of artwork skills;
- Evidence of the development of computer artwork, using a variety of graphics software, following negotiation of a brief from a client, from initial ideas to final product accepted by the client, to include:
  – notes taken during the negotiation of a brief, together with a range of initial proposals in response to a complex problem;
  – an analysis of their design proposals to select the one they will develop;
  – development of a final product, showing editing techniques and choice of printer type, media and resolution;
  – development of ICT skills required by their solution;
  – a substantial artwork product that meets the requirements of the brief;
- An evaluation of both the final product, including consideration of the hardware and software used, and their performance.

In task a, some candidates failed to includes samples of artwork produced covering the range listed on the assessment grid. A small number of candidates included material which they had not produced, but taken from other sources. Mark band 3 was achieved in only a small number of portfolios as few candidates explored the development of the materials using advanced editing and manipulation techniques. It should be noted that it is not necessary to provide step-by-step screenshots explaining how the original images were produced. The referencing for task a must relate solely to the portfolio of artwork and must not include reference to the product developed for the client.

A small number of centres did not ensure that an appropriate product was created for the client. Candidates are required to develop **artwork**, not publications, presentations, web pages or other such products; other units exist within the GCE Applied ICT specification addressing the development of such items and such evidence should be used for these units. The artwork must be sufficiently detailed to allow the candidate the opportunity to develop artwork and images using a variety of skills listed on page 77 of the unit specification.

Task bi was poorly evidenced by many candidates as the sketches, in response to the client brief, were very brief and in many cases did not consider the capabilities of the software. In some cases, it was not clear if the client existed; if there is no opportunity for a real client, then the teacher or other suitable person should act as the client. Task bii was difficult to achieve if task bi was poorly evidenced, as it was not easy to comment on the strengths and weakness of the designs. Mark band 3 required critical analysis and not just descriptive comments. Task biii requires candidates to show development of the product and the use of ICT tools, not just to present the final product. Task biv requires explicit evidence that ICT skills have been developed. A diary can help to evidence this, or alternatively annotated screenshots can provide evidence. Evidence for task bv varied greatly as some candidates had not considered client feedback in order to access higher mark bands.

Task c required a critical analysis of the final product, identifying how well it met the brief. Some candidates made little reference to the brief and some omitted to mention the printer, media or resolution. Candidates that appeared to have limited experience on working with computer artwork found it difficult to reflect critically on the final product and identify how weaknesses could be tackled in future briefs.

G053 Developing and Creating Websites

For this unit candidates were required to produce:

- an evaluation of commercial websites that have been downloaded;
- analysis and design notes for a website that has at least three pages, together with detailed plans for publishing their website;
- annotated print outs of their own web pages in WYSIWYG (What You See Is What You Get) format identifying the features and techniques used in the web page;
- annotated printouts of their own web pages in HTML format identifying edits to script commands to change page layout; documentation of website testing;
- documentation of website testing;
- an evaluation of both their website and the components used to produce it, and their own performance.

For task a, some candidates failed to explain the reasons for choosing, or not choosing, features in web pages examined, as required to mark band 2. In order to access mark band 3, there must be a critical analysis of the web pages examined. Frequently, the evidence provided was solely a description of the web pages visited, meeting mark band 1 requirements.

In task b, candidates were required to identify domain names suitable for the site and, in order to access higher mark points, explain the reason for this name and provide alternative options. It was pleasing to see that a number of candidates had actually uploaded the site designed. Task b also required structure diagrams, a story board, an index of pages and a task list/action plan. Frequently some of these components were missing from the candidate work; the most common omission was the index of pages in the website. Some candidates had not sufficiently analysed the website to be produced.

In task c, to secure mark band 3, a full explanation is required to explain the design techniques, hyperlinks, multimedia and interactive features used.

Evidence of understanding HTML script in task d was implicit rather than explicit in a number of portfolios. For mark band 2 candidates were required to edit script commands. Evidence to support this could include a before and after screen shot of the implications of the changes as well a narrative to describe the changes. Mark band 3 requires evidence of adding script commands to include at least two from graphic, table or hyperlink. A number of candidates concentrated on embedding scripting language code, such as JavaScript, rather than editing and adding HTML script. The use of JavaScript contributes to task c and not task d. This has been contained within reports for previous sessions, yet some centres have failed to address this issue.

In task e, a small number of candidates failed to ensure that the website met the design specification; explicit evidence of this is required. It is useful if candidates include before and after screenshots if changes are required to the website as a result of testing.

Task f required candidates to produce a critical analysis of their website in order to gain higher marks. An analysis of the candidate’s own performance was also required. In many cases the evidence was a description of what they had undertaken, rather than a critical analysis.

Unit G056 Program Design, Production and Testing

For this unit candidates were required to produce:

- a program specification to meet the given requirement and a description of how their specification meets the program requirements and how they have considered the user’s needs;
- a program design arising from their specification and an analysis of the design methods they have used;
- an annotated modular program to realise the design, which must include at least one data structure, all data types, all control structures and all appropriate operators listed in the programming section;
- test documentation including a test plan with valid, invalid and boundary data, expected results, actual results and changes identified as a result of testing;
- a program review and evaluation report including an evaluation of their performance.

Only a small number of candidates were entered for this unit.

In task a, some candidates had only briefly identified input, processing and output; however, this could have been more detailed and would have helped to develop the specification.

In task b, a clear description of design work is required; addressing processes, input, output, validation, verification, data structures and file structures. A small number of centres failed to ensure that candidates addressed all of these.

Candidates must include evidence in task c to show that they have produced a fully working program. Some candidates provided little evidence of development of skills within this task.

Explicit evidence of testing is required in task d. Evidence presented by some candidates was minimal. Sometimes, whilst a test plan had been produced, there was no clear evidence of boundary data being tested.

To achieve mark band 3 in task e the evaluation must be critical; often the evaluations produced by candidates identified some strengths, weaknesses and areas for improvement with some user feedback, but often lacked depth and critical content.

G057 Database Design

For this unit, candidates were required to produce a relational database to meet a given specification requiring at least three related tables supported by design and analysis notes, technical and user documentation and an evaluation of the database produced.

Their evidence to support this should include:

- analysis and design notes;
- normalisation of the data model to 3rd normal form (NF) with documentation;
- a user interface, including data input forms and methods of obtaining output;
- a working relational database;
- user and technical documentation;
- test plans and the results of the testing of the database;
- an evaluation of the effectiveness of their solution and own performance.

The design produced by candidates within task a must be sufficiently detailed to allow a competent third party to implement the designs if mark band 3 marks are to be considered.

In order to access mark points beyond mark band 1 in task b, candidates must produce a correct entity relationship diagram and, for mark band 3, define the data model clearly and show that it is correctly normalised to 3rd normal form (3NF). Some candidates failed to provide clear details of the entities, attributes, keys, relationships and internally generated or processed data. It should be noted that the use of 'autonumber' primary keys in all entities is unlikely to be an appropriate solution to the database problem. This session, there was stronger evidence presented to explain how the model was normalised.

The data input forms for task c required evidence of data validation and should have been fully labelled in order to access mark band 2. These should also incorporate pull down lists and labels. More able candidates demonstrated the use of forms allowing data entry into multiple tables and customised the database to hide the underlying software.

Candidates were required to evidence the manipulation of data in the database and use queries and reports for task d. More able candidates designed reports with evidence of grouping, arithmetic formulae and used data from more than one table, accessing mark band 3.

The database documentation in task e must enable somebody else to maintain the database. There was little evidence of the use of software generated technical documentation; such documentation does not demonstrate an understanding by the candidate of the evidence generated unless it is annotated. Design documentation created by the candidate often showed a greater understanding of the design of the database for task e.

Testing of the database in task f must included evidence of testing both functionality and rejection of data outside the acceptable range. Where input masks have been used as part of the solution, these must also be tested.

The reflection within task g of how well the database met the specification needed to be a critical evaluation, rather than a description, if the higher mark points are to be accessed. Likewise, the analysis of the candidate's performance needed to be more than descriptive in order to access higher mark bands.

G058 Developing and Maintaining ICT Systems for Users

For this unit candidates were required to produce records of specifying, upgrading and repairing ICT systems, to include:

- records of interviews with two different users to identify their key requirements;
- detailed specifications for an ICT system for each user, along with explanations of the reasons for selecting particular components, in non-technical language;
- records of carrying out an upgrade involving selecting and adding a new component to a system;
- records of carrying out an upgrade by replacing a component in a system;
- records of troubleshooting procedures carried out to identify faulty components;
- an evaluation of the information sources used to find information on components;
- an evaluation of the specifications and approaches taken to specifying, upgrading and repairing systems.

There were insufficient entries for this unit to comment on candidate performance.

G059 ICT Solutions for People with Individual Needs

Candidates will produce a report or presentation for ICT solutions which assesses the needs, defines ICT solutions and evaluates the solutions in response to **three** case studies. Each of the individuals in these case studies will have different needs and candidates need to include **one** case study that relates to an individual who has sensory needs.

For this unit candidates were required to produce evidence that:

- shows an understanding of legislation and the rights of each of the individuals in connection with their ICT solutions;
- shows a clear understanding of the disabilities or limiting factors, and resultant needs, identify and show suitable items of equipment and software as appropriate;
- evaluates the viability and effectiveness of their proposed solutions, indicating how the solutions will enhance the quality of life for each individual;
- presents their reports or presentations in a way that is suitable for the needs of the individuals outlined in each case study, or for a carer if the case study is that of a young child or a person with very limited understanding
- for at least one case study, provides a specification for a complete system, to include configuration and customisation of software and equipment as appropriate and demonstrate that they can customise the available operating system and applications, evaluating their actions and role in solving this problem.

On a few occasions, evidence for task a extended unnecessarily beyond the legislation listed on page 117 of the unit specification. Candidates need to consider the implications of the legislation on the individual to secure mark band 3.

Task b was, on the whole, evidenced well by candidates; although a small number of candidates did not evaluate the effectiveness of the recommended solution but had been awarded marks within mark band 3 by the centre.

Task c required candidates to produce an analysis of their solutions in order to gain marks in mark band 3.

Task d required candidates to produce the recommendations in a format that suited each of the users. Some good evidence was presented for this task, although candidates occasionally omitted to provide evidence of verification of the accuracy of the information, as required for mark band 3.

Evidence requirements for task e had been misinterpreted by a small number of centres. Some candidates presented evidence suggesting that limited customisation of the operating system, application software and the hardware had been carried out. Task e requires alternative suggestions to meet the needs of the user; evidence for this is likely to involve consideration of specialist hardware and software that is available to support people with individual needs, rather than relying on generic hardware and software customisation.

G041: How Organisations Use ICT

General Comments

Performance on the paper was comparable to previous sessions with a good range of marks but very few in the top 20% of the mark range.

Many candidates appeared to have a good understanding of the general requirements of the questions asked. However there are some sections of the exam where candidates had misinterpreted what was actually required of them. This could possibly be because some candidates did not spend enough time familiarising themselves with the case study. For example, candidates seem to have some difficulty in extracting information about processes from the case study itself and were not as familiar with the case study as they could have been.

Some candidates only submitted task 2 and 3. It was not clear whether this was because task 1 had not been attempted, it had been completed but not taken into the examination or the centre had failed to send it to the examiner with the examination papers. Candidate that took the risk of not completing task 1 were generally unprepared for the exam and were not familiar with the case study. Consequently, these candidates found it difficult to answer the questions based directly on the case study. Centres are reminded that task 1 must be submitted to the examiner if it is used in the examination.

Some candidates also lost marks because they did not apply their responses to the question set – not reading / not understanding the question / not giving the type of response required. The skill of picking out the key points required is something that needs to be taught.

Although most centres had prepared their candidates very well so that candidates had followed the case study and answered questions clearly, candidates from some centres were poorly prepared and some answers did not match the case study. In section A, all answers must relate to what the organisation in the case study does, rather than generic answers relating to a finance department, for example.

Centres are encouraged to use the What You Need To Learn section of the unit, as well as previous Examiner Reports, question papers and mark schemes when preparing candidates for the examination. Candidates should also be taught examination techniques to help them provide appropriate answers to the questions. The content of the What You Need To Learn section of the unit must be taught before candidates sit the examination. Questions in section B can ask about any of the topics covered. Too many responses to the questions in this section suggested that insufficient emphasis had been placed on teaching the content of the specification for this unit.

The work taken into the examination **must only** include the candidates' responses to the tasks set. Class notes, hand-outs and worksheets on aspects of the What You Need to Learn section of the unit **must not** be taken in to the examination. The requirements of task 1 change from year to year, so centres need to ensure that the task is read carefully and responded to appropriately. For example, whilst legislation has formed part of task 1 in previous years, this is not part of the requirements of the task this year. Candidates should not, therefore, have included notes on legislation within task 1 or taken them into the examination. Teachers need to set deadlines for completion of the tasks so that they have sufficient time to check (but not mark) the work carefully prior to the examination. Centres are also reminded that **all three** tasks must be submitted to the Examiner with the examination paper.

Most pre-prepared work was word processed and most candidates had clearly labelled tasks 2 and 3. All reports for task 3 were word-processed report this session as required. Hand-drawn diagrams are acceptable for task 2 and candidates may benefit from hand-drawing the information flow diagram, or at least hand-labelling the information flows, as marks were sometimes lost due to candidates' inability to manipulate text boxes. However, please discourage the use of paper larger than A4 for producing the diagram. Also, please discourage candidates from colouring in the boxes containing the entities. Apart from being a waste of colour toner, it makes the diagrams physically difficult to mark. Where colour is used to link labels to arrows, please ensure that the colours used are readable – yellow text on white paper, for example, is not easy to read.

In most centres candidates now clearly distinguish between Task 1, Task 2 and Task 3, and put the tasks in order but there are still some where the work is poorly organised. Where examiners have to search for the tasks to mark, they are more likely to find inappropriate material that the teacher may have missed.

Candidates should be encouraged not to tie the treasury tag into a knot or wrap it through the hole several times – this leads to the examiner having to cut the tag to mark the paper! There were instances where the work submitted for the tasks was not fastened together / named etc. Although most Centres had secured the work with a treasury tag as requested, there were still some who used plastic pockets to hold the pre-released tasks. Please do not do so. The work should be hole-punched in the top left hand corner and secured with a treasury tag. The exam paper once again has a pre-punched hole to attach the tasks.

In addition to checking for material not related to the tasks, centres are reminded of the need to check the work carefully for authenticity before signing the Centre Authentication Form. There were, again, a number of instances of identical information flow diagrams this session. Candidates should also be warned that it is very obvious when they simply copy and paste from a website for task 3. While most candidates included the required list of sources, some still failed to do so. Also, quoting the website used in their list of sources does not excuse copying and pasting significant sections into their report.

A number of centres failed to send a Centre Authentication Form but did send individual candidate authentication forms. A Centre Authentication Form **must** be included with the scripts. If no Centre Authentication Form is received, candidates will not receive their results. The candidate authentication forms, however, should **not** be submitted. These should be retained securely in the centre until final results are published.

Care is needed to ensure that candidates are not given too much guidance when carrying out the tasks. Whilst it is acceptable for Teachers to ensure that candidates understand the content of the case study and the requirements of the tasks, they should not give help that relates directly to carrying out each task. Too often, the diagrams created for task 2 and the topics addressed in task 3 were similar for all candidates within a Centre.

Where candidates run out of space when answering a question, they should be encouraged to ask for a supplementary sheet, rather than writing the answer elsewhere on the paper. If they do use a supplementary sheet, they must indicate to the Examiner that they have done so. Such sheets easily get mixed in with the pre-released tasks and may be overlooked.

Comments on Individual Questions

Task 2

This task was not as well answered as the corresponding task in previous sessions with fewer candidates gaining full marks. Although most candidates gained the five marks for the boxes, marks were mainly lost due to candidates describing processes, rather than identifying information, for example 'confirm booking', rather than 'booking confirmation' or 'book staff', rather than 'waiting and washing up staff required'. Some labels were too vague, such as 'requirements' or 'confirmation', without stating what was required or being confirmed. There were more instances than usual of having arrows going in the wrong direction but fewer instances of ambiguous labelling. Most candidates presented a correctly structured information flow diagram. There were very few examples of complete centres submitting incorrect diagrams.

Candidates need to be taught to use nouns, rather than verbs, when identifying the information and method. Whilst ‘emails booking confirmation’ may be acceptable, ‘confirms booking by email’ is not. If candidates get into the habit of writing ‘booking confirmation - email’, ‘quotation – post’ and so on, they are less likely to fall into the habit of describing processes.

There was some misunderstanding of communication methods. Verbal and written are types of information, not methods of communication. Verbal information can be communicated face-to-face or by telephone, for example, while written information can be passed by hand, by email or by post. Page 27 of the unit specification lists communication methods.

Task 3

The requirements of this task were misunderstood by many. The task required candidates to evaluate the impacts of applying the Data Protection Act on the organisation, its staff and clients. Most candidates limited their response to discussing the eight principles and the rights of data subjects, rather than considering any impacts that following these principles might have. This limited marks to the bottom of the middle mark band.

Many limited their opportunity to score marks still further by failing to apply their report to the case study. It is not sufficient to simply mention the name of the company throughout the report and simply refer to staff and clients in general. To move out of the bottom mark band, candidates need to relate their explanations to specific examples from the case study, for example, discussing the information collected by the catering manager when visiting a client who wants to book an event. It is not sufficient to quote from the case study and then separately discuss the Act in general terms. To be considered applied, the Act must be explained using the examples from the case study.

Most candidates gained some marks for their AO4 evaluation but the most common mark was one, for identifying the method used. In some centres, the majority of candidates limited their marks by not addressing the AO4 point, or simply listing the websites visited.

1 This question was generally well answered. Most candidates could identify a job function, with few identifying a job title instead. Indeed, many candidates went one step further and wrote ‘finance function’ or ‘HR function’ as their answer. Where marks were lost, it was because the responsibilities, rather than tasks were given, eg ‘advertising the company’ rather than ‘placing advertisements in local newspapers’. Some answers lacked precision, such as ‘arranging invoices’ rather than ‘arrange payment of invoices’.

2 This question was also quite well answered, although the majority of candidates gained 4 or fewer, rather than the full 5 marks. This was because candidates had only given the information provided near the beginning of the case study, rather than including other aspects of the administration assistant’s role that was described elsewhere. Those candidates that gained full marks usually concentrated on these other aspects, such as the administration assistant’s role in taking and processing sandwich delivery orders.

3 Where candidates read the question accurately and identified the correct processes involved, they scored well on this question. Those that failed to read the question accurately gave answers relating to restocking of sandwich bars or ordering stock for a particular event, rather than the re-ordering of general stock items. Such answers gained few, if any, marks.

Part a(i) was the least well answered part of the question because candidates described the process of obtaining the information, rather than identifying the information obtained. This then had a knock-on effect on part a(ii) because candidates had already given part of the answer in a(i), so lost some of the marks in a(ii).

4 Parts a and b of this question were poorly answered, although most candidates were able to gain some marks for describing the processing and calculations in part c.

In part a, candidates tended to describe the process of making an appointment, rather than identifying how particular information was obtained. Few candidates were able to identify the correct information in part b(i) – menus and quantity – and were not, therefore, able to access the marks in part b(ii). Many of the candidates who failed to gain marks in part b started their answer to part c with details of this input data and the methods used to input it that would have gained them the marks in part b. Candidates need to be taught that processing and calculation is what the system does and that what people put into the system to be processed are the inputs.

Where marks were lost in part c it was usually because answers lacked the precision required, for example, failing to include the number of staff in the calculation for their cost or adding VAT but not calculating it. Weaker candidates described what people did, rather than the system.

5 Although many candidates were able to gain full marks on this question, a number limited the mark they could gain to 9 because they failed to score any marks in one section. Candidates lost marks because they do not know the difference between input and output devices and data. Some candidates failed to read the question accurately and described all the systems used in the sandwich bar, rather than just the one used by the cashier.

Most candidates gained some marks for hardware but rarely for the fact that the cashier uses a networked computer. Similarly, some candidates lost marks in the software section for failing to indicate that a specially designed spreadsheet package was used. Most candidates also gained some marks in the input data section, although some lost marks because they gave input devices, rather than data or because their answer was too general, such as ‘the customer order’. Similarly, a number of candidates lost marks in the output section for suggesting a device was the output, for example ‘a thermal printer to print customer receipts’. Candidates need to be able to differentiate between outputs and the devices that produce them and show their understanding in the way they frame their answers.

The processing section was quite well answered this session. Where candidates lost marks, it was because their answers lacked the detail required, for example by saying that the price of sandwiches is calculated without saying what the calculation is – adding the cost of bread and fillings.

6 This question was poorly answered by many. In section a, most candidates only commented on the length of time the process took, without being more specific about why, or described a stage in the process without saying why this was a weakness. Many candidates appear to have a very poor opinion of the postal service, with many suggesting quotations would get lost in the post or not arrive due to postal strikes.

In part b(i), better candidates were able to suggest that the catering manager took a laptop on visits or that a website with online ordering was set up but many just suggested the quotation was emailed, rather than posted or suggested details were input to the system during the visit without saying how. Neither of these answers gained marks. Where marks were gained in part b(i) candidates could access the marks in parts b(ii) and b(iii) but many failed to do so. This was often because the answers were too vague in b(ii), falling into the faster, cheaper, easier category and rarely considering more than cost in b(iii).

7 Part a was well answered by many. Most candidates clearly have experience of buying goods online and were able to describe the process accurately, although a number think that bank account, rather than card details are required.

In part b, many candidates answered from the customers' point of view, rather than that of the business. Many thought that no premises or staff would be needed, rather than recognising that high rent shops could replaced with lower rent warehouse space, and a worrying number think that e-commerce is a business that the company would have to pay!

Too many candidates believe that the Copyright, Designs and Patents Act stops people copying designs, rather than enabling the designers to sue those who do.

8 With this type of question, candidates need to look carefully to see who the impact is applied to in each part of the question. In this case, part a required the impact on office workers, while part b required the impact on their employers. Whilst part a was generally well answered with many candidates able to indicate that the workers could work from home and the benefits and disadvantages of this, a few strayed into aspects such as poorer quality of work, which is an impact on the employer.

Part b was often poorly answered, with many answers relating to the employees rather than the employer and many candidates thinking the work would not get done if employees were not directly supervised.

G048: Working to a brief

General Comments:

This was the first session undertaken with the revised marking grid. The vast majority of centres have used the correct form and have marked out of 50, rather than 100, as was previously the case. In this handful of cases where centres had marked out of 100, the work was returned and centres were asked to remark using the new criteria.

The changes in marking criteria for some tasks were well applied.

Some centres are approaching this task as a group project. This is acceptable, as long as the authorship of elements within the submission is clear. Marks may only be awarded to a student where it is clear that the work completed, or progress made, has been done by the individual student. In many cases where the task has been completed as a group assignment, centres tend to award the group as a whole as opposed to the individual candidate. This is particularly problematic for the diary task, where the diary may suggest that the group as a whole have progressed, for example, but where there is either no evidence that the individual candidate has made such progress, or indeed that other members of the team have made the progress, but that the individual candidate who is being assessed has not.

Comments on Individual Assessment Objectives:

a This report requires candidates to research into the issues of which they need to take account when they are working on the final product. These issues should cover the planning and creation of the tasks. This report should be seen as the opportunity for candidates to research into all requirements of their solution.

The focus of the current working practice is dependant on the choice of project. However, the content should, in all cases, allow the candidate to gain a clear understanding of what needs to be completed. As a general guide, candidates need to consider the general area of focus – such as how general websites may be designed and created to suit a purpose – as well as the specific focus given by the scenario. In order to research into the focus of the scenario, candidates may consider any materials that give them access to further understanding of the intended focus of their work. For example, a scenario that requires candidates to produce a specific multimedia product may benefit from research into other multimedia or non-multimedia materials that intended to meet a similar purpose. These non-multimedia materials may include, for example, written materials.

In this session, many centres awarded marks from MB3, despite candidates only covering some issues. Centres seem to basing these awards on the fact that candidates have submitted some issues. For candidates to be awarded marks from MB3, there must be a balanced discussion of all issues that should be applied in order to complete the solution to the brief. As a guide, centres should work from the principal that there is no prior knowledge and all that is required for candidates to be able to interpret and answer the scenario comes from this initial research.

bi The majority of candidates now include at least one formal planning technique in their work and therefore access marks from MB2. For those candidates who include two or more formal planning techniques, marks from MB3 are available. The vast majority of centres now award this task correctly, at least so far as that candidates are awarded marks from within the correct Mark Band.

There has been a noticeable increase over recent sessions of candidates providing mind maps as an extension to their planning. Whilst these do allow the candidate to identify the tasks they need to complete, these do not, of themselves, access higher marks, as simple mind maps are not considered to be formal planning techniques. There is a list of formal planning techniques within the specifications, but centres are advised that the requirement is for candidates to produce at least one formal plan that, as a minimum, shows when a task is to begin or end, as well as the time allocated to the task.

Centres are advised that candidates must use two distinctly different planning techniques for MB3 to be awarded. Increasingly, candidates are presenting two forms of Gantt chart, where the only difference is the manner used to present the blocks of time. Typically, candidates are presenting the time block firstly as a solid block and then as a drawn line. In all other aspects, both plans are identical. In such cases, these are not two distinct formal planning techniques, but rather one presented in two different ways. In such cases, a mark from MB2 is appropriate.

bii This task remains one for which centres are over valuing relatively sparse planning. The planning process should cover the period from the end of the current working practice report through to the end of the production of support materials. Reports e, f and g are not part of the production of the response to the brief and so should not be included in this planning.

This task is differentiated by the detail that is included in the planning. As a simple rule of thumb, the more detail that is included about how the product is to be created, the more marks should be awarded.

For candidates to be awarded marks from MB2, they must be talking about creating the final product as a series of discrete tasks. For example, they may mention creating pages for a published document. However, for MB3, candidates must be breaking this task into further parts, such as identifying when they will create assets such as pictures that will appear on the page.

In too many cases, candidates are being awarded for plans that do not include any real detail. Typically, such plans include a good deal of irrelevant entries and one line that states that the candidate will produce the product at a certain time. As stated above, such planning should be awarded a mark from MB1, rather than from MB2 or even 3, as is sometimes the case. To avoid such errors, centres are advised to focus on planning that covers the completion of the product and not to allow themselves to be distracted by other, non-consequential, tasks.

ci The diary should cover the same time period as the planning produced for tasks B(i) and (ii).

No changes were made to the criteria for this task. As before, candidates are expected to show that they have both developed and extended their skills and understanding whilst producing their solution to the brief. For mark band 3, candidates must show that they have used initiative in order to make this progress. However, candidates **must** have shown that they have both developed and extended skills before they may be awarded marks from MB3.

In the best cases, candidates write clear statements that refer to the skills they have developed and extended. It remains the case that the onus is on the candidate to claim marks throughout this diary task, and such clear evidence is indispensable for this purpose.

cii This task has been amended and the criteria narrowed. Candidates are no longer required to show that they have applied skills learnt in other aspects of the course.

For this task, candidates need to provide evidence that they have used both informal and formal techniques in order to produce the solution. This evidence may be limited to comments made within the diary, but in the best cases, candidates included examples of emails sent and received, formal agenda for and minutes of meetings held, as well as transcripts of conversations held with advisors or other recognised experts.

Candidates also need to show that the quality of their work will affect others. This is generally evidenced through comments in the diary.

For a candidate to access marks from MB2 or above, there must be evidence of ALL of the above. For MB3, this evidence must be extensive. Where a candidate does not provide evidence that they are aware of the impact of their work on others, they must be awarded a mark from MB1.

ciii This task is assessed via the complexity of the tasks completed, as evidenced in the diary. In many cases, the marks awarded for this task do not reflect the evidence in the diary. It would seem sensible to conclude that centres are therefore awarding on the basis of what they have seen candidates do, rather than the evidence they have provided in their diary. As mentioned above, the diary is the student's opportunity to claim evidence of what they have done. Centres are advised to make this requirement clear to candidates and to impress upon them the need for all issues to be identified within the diary. In the best cases, candidates include an explicit comment about issues that have been dealt with during each session.

For MB2 and MB3, candidates MUST be justifying the actions they have taken. Without this justification, marks must be limited to MB1.

As implied above, this task is one which is still over marked by centres. Typically, candidates are not showing the complexity and explanation that centres are awarding.

d There has been a major change in the criteria for this task. Candidates are now awarded on the extent to which they have used skills learnt in this and other units within this qualification. Typically, this would be skills learnt within the G040 unit. For marks within MB3 to be awarded, candidates are therefore expected to be producing support materials of near professional standard.

Support materials should be seen as those resources (other than the product itself) that may be passed to the client at the end of the process. This would therefore exclude, for example, test plans and reports.

The accuracy of marking for this task has improved greatly on previous sessions.

e, f and g

All three tasks require the candidate to analyse their work. Where the candidate merely gives a commentary, without analysis, marks from MB1 are appropriate.

This continues to present a problem to centres, who are consistently awarding work that is of a descriptive nature as though it were analytical. For MB2 and beyond, there needs to be evidence that candidates have thought about their actions and used criteria in order to categorise their actions into strengths and weaknesses. Candidates also need to provide some improvements for MB2 and for MB3, there must be clear suggestions for improvements that are clearly linked to the issues that have been raised.

For this session, there was still a tendency in some centres for candidates to confuse planning with implementation. The review of planning should, fundamentally, be based on the initial research into Current Working Practice (where candidates may, for example, talk about the validity of their research, which may be judged by the extent to which it enabled them to plan and produce a high quality response to the brief), the use of techniques to identify the tasks that need to be completed, the allocation of timings to each task and then the organisation of these tasks into an overall plan or plans.

If completed properly, this report should be a major piece of work.

For implementation, the criteria for assessment are very much the same as for planning, other than the focus is on the creation of the product. This may be focussed solely on the final product, but in the best cases, candidates may also discuss the interim stages, including any drafting that may have occurred, as well as developmental meetings with the client. There should be no assessment of the overall quality of the completed product in this report.

For task g, candidates need to start with a set of criteria to be met. These may be gleaned from the initial brief set by the board. However, it is perfectly acceptable for centres to augment these briefs in order to develop local criteria. Where, for example, the candidate is negotiating a product with a client, it is perfectly acceptable for these meetings to lead to further criteria that may only apply to the work being produced by the individual candidate.

Once success criteria have been established, candidates need to work to these criteria in order to produce their product. Once completed, the product needs to be assessed against these criteria. This is the basic requirement for this task. For marks from MB2 and MB3, this analysis must be based on feedback from the client and user(s). The major differentiator for this task, other than spelling and grammar, is the extent to which the analysis is based on feedback from others, as compared to the individual candidate's own perception of their work. Where there is the extensive use of comments based on the candidate's own perception and not backed up by comments from the client or user(s), marks from MB2 should be awarded (assuming that these comments address the identified success criteria for the task). Where the analysis is solely based on feedback from the client and user(s), marks from MB3 are appropriate.

G054: Software Development

General Comments

This was the first examined examination paper relating to the revised specification for the Applied GCE. However, many of the issues raised in previous reports are still relevant. It was pleasing to note that many centres had actioned the issues raised in the reports on previous examinations. Once again, there was a wide range of marks on this paper with many candidates accessing the marks available for the pre-release tasks.

Centres are reminded that all answers given to questions in Section A must be applied to the case study; in this case Hideaway Sheds, and are not theoretical. However, the performance of the candidates on section B of the paper continues to be disappointing

The majority of candidates had attempted all of the questions producing good quality pre-release material to help them in Section A of the examination paper. Centres are reminded that the work for Task 1 must only cover the topics listed in the instructions to candidates. A minority of candidates had not fully prepared the pre-release tasks failing to submit at least 1 of the tasks. This strategy disadvantaged those candidates who are unable to access all marks available for the tasks.

There were very isolated instances of candidates not producing work for Task 1 of the pre-release material. There were also some instances where the pre-release tasks for the June 2010 session had been completed. This disadvantaged candidates who were unable to access the marks available for Tasks 2, 3 and 4. Centres are reminded that, although the case study and Task 1 are the same for both examination sessions, Tasks 2, 3 and 4 change from January to June. It is, therefore, vital that the correct candidate instructions are used.

It would be helpful to examiners if centres could clearly distinguish between the tasks, and put the tasks in order. Candidates should be encouraged not to tie the treasury tag into a knot or wrap it through the hole several times – this leads to the examiner having to cut the tag to mark the paper! There were instances where the work submitted for the tasks was not fastened together/named etc. This may cause problems during transit.

Some questions were poorly answered due to the candidates not reading/understanding the question. The need to read the question carefully and answer accordingly cannot be over-emphasised. Centres should give candidates some guidance on the key words that are used in a paper i.e. describe, explain and discuss, and the requirements of these key words.

Care is also needed to ensure that candidates are not given too much guidance when carrying out the tasks. Whilst it is acceptable for teachers to ensure that candidates understand the content of the case study and the requirements of the tasks, they should not be given help that relates directly to carrying out each task. Too often, the work produced for all tasks was very similar for all candidates within a centre.

Centres are reminded that section B of the paper can focus on any part of the unit specification. It was obvious that some centres had concentrated on the requirements of the pre-release tasks and the case study and had not fully covered the requirements of the specification. This strategy disadvantages candidates when they are attempting to answer section B of the paper.

Comments on Individual Questions

Task 2

The task required candidates to produce a system flowchart with the start point being given as a customer contacting Hideaway Sheds and ending when the final payment is sent to Hideaway Sheds by the customer. There were many instances of the start and end points shown in this task being different.

The main failing on this task was to produce a flowchart rather than a systems flowchart. There were some instances of candidates producing L1 DFD's in response to the task. Those candidates who produced a flowchart, including the start and end being identified, failed to gain any marks for this task.

A pleasing number of candidates were able to clearly identify the columns used in the systems flowchart as being the customer, Admin, the order system and the warehouse. Candidates who failed to identify these column headings were unable to access any of the marks allocated to the systems flowchart.

Those candidates who produced a system flowchart used symbols consistently. It is appreciated that there are many different sets of symbols that can be used to develop system flowcharts but which set is used is irrelevant as long as the set of symbols used is consistently.

Many candidates failed to achieve any marks for AO4, as they had made no attempt to evaluate the methods used to produce the systems flowchart. The focus of the evaluation is the methods used and not, as some candidates produced, a step-by-step guide as to how the task was completed.

Task 3

This task required candidates to produce Structured English to show the procedures for calculating discounts and the postal charges to be applied when accessories are ordered. The specific details of the discounts available and the postal charges were shown in the tables in the case study.

To access all marks available for this task, candidates had to clearly identify if the customer was ordering accessories with or without a shed. Some candidates failed to provide a clear indication of this, so limiting the marks they could achieve. Some candidates provided extra detail relating to the delivery charges that are applied by Hideaway Sheds. It is important that candidates produce work that relates to the requirements of the task.

Many candidates failed to define all rules and associated actions in the Structured English they produced. There were many instances of candidates failing to use the logical operators (>, <, =) correctly. This lost candidates marks for this task.

The type of Structured English used to produce the evidence for this task was, again, irrelevant. It became obvious through the marking process of the wide range of Structured English being taught in centres.

Task 4

Candidates were required to design an input screen for the administration staff to input customer's orders. The emphasis of this task was on the design of the form and not the implementation of the design.

There were a large number of candidates who had produced the evidence for this task using some form of software package. This was accepted unless the screen showed any form of population of fields. If this was present then no marks were awarded for this task.

Section A

1 Many candidates answered this question well. There were, however, still instances of generalised purposes such as ‘to improve/modernise the business’. Some candidates still appear to be confused about the difference between the purpose and the functions of the new system.

2 The focus of this question related to the user requirements that have been defined by the owner of Hideaway Sheds. Many candidates failed to relate their response to the owner of Hideaway Sheds, providing responses that related to different groups of staff that work at Hideaway Sheds.

3 This question focussed on the functional requirements of the new system that have been defined.

Part (a) of this question focussed on the functional requirement of the new system that has been defined by the staff who work in the warehouse. This question was related to a very precise requirement which had been clearly defined in the case study. Many candidates did not link their answer to the warehouse and so failed to access the marks available for this part of the question.

Part (b) of the question was specifically related to the customers and orders. Many candidates were able to access the marks allocated for this part of the question.

4 The focus of part (a) of this question was on the defined software constraint. If candidates failed to provide a response that identified the vendor then they were unable to access any further marks allocated to this part of the question. Most candidates, however, were able to provide answers detailing that vendor of the operating system/applications software had to be kept the same.

Part (b) of this question then required candidates to identify and describe a further constraint that had been defined by Hideaway Sheds. Despite the question stating that hardware and budget should be excluded in the response given, a high proportion of candidates provided responses relating to these. If candidates failed to identify the correct process constraint then they were unable to access the marks allocated to this question.

5 Few candidates were able to describe the problems caused by the current system that related directly to the customers. Some candidates failed to link their answers to the customers and so failed to score marks.

6 This question assessed the candidates’ quality of written communication and was marked using a banded response mark scheme.

The question asked candidates to explain the different maintenance strategies that can be used, providing examples relating to Hideaway Sheds.

Those candidates who provided examples gave some excellent and insightful answers. Most made general comments about the different types of maintenance strategies that could be used providing little, if any, examples of how they could be used by Hideaway Sheds. This strategy restricted the marks that could be gained to the lowest mark band.

It was rare to find a candidate who linked the maintenance strategies closely to Hideaway Sheds, even though in this case the case study had lots of scope to do so.

It was worrying to note, in the answers given to this question, a general confusion about the different types of maintenance that can be carried out on a system and the purpose of this maintenance. There were a number of candidates who confused the names and descriptions of the different maintenance strategies that could be used.

7 Candidates had to identify the relevant Act before they gained more than 2 marks for their explanation.

A surprising majority of candidates were unable to provide the correct response to part (i) - the Health and Safety at Work Act. The response given to part (ii) of the question were, in most cases, very generic. Responses such as 'provide comfortable chairs' failed to gain marks – chairs provided should be adjustable is an example of a response that is worthy of a mark.

8 To achieve the marks allocated to this question candidates had to describe two *physical* security measures that could be used by Hideaway Sheds.

A worrying number of candidates provided responses that related to logical (e.g. passwords and user names) security methods.

Section B

As stated previously in this report it was obvious that some centres had not fully covered the requirements of the unit specification and had simply concentrated on the requirements of the pre-release tasks and the case study. This strategy led to candidates being unable to gain marks on section B of the paper.

9 The focus of this question was on the differing types of documentation that is passed to the user when a new system has been implemented.

Part (i) of this question required candidates to explain why version details should be passed to the user. Many candidates failed to score any marks on this part of the question. The most common misconception was that version details are supplied so that you can see what has changed.

Part (ii) of this question focussed on detailed program specifications. The responses to this part of the question were better with many candidates scoring at least one mark.

10 Very few candidates scored marks on this question. A list of the components of the input specification part of the physical design specification is given in the unit specification.

11 This question focussed on a fundamental development tool, decision tables, which can be used within the area of software development and the systems life cycle.

It was clear that candidates from some centres did not know how to construct a decision table with many failing to identify the correct conditions and actions. If candidates failed to achieve the marks allocated for the correct identification of the conditions and actions then they were unable to access the marks allocated for the rules.

12 This question focussed on the evaluation of the use of decision tables as a tool in the systems life cycle. The question was marked using a banded response mark scheme and assessed the candidates' quality of written communication.

Many candidates were able to provide a reasonable description of a decision table so accessing the lowest mark in the low mark band. .

However, to access the middle or higher mark bands candidates had to provide an evaluation, including the advantages and disadvantages, of the use of decision tables. In addition, the technical terms used in the response had to be used correctly and appropriately.

As the keyword used in the question was ‘evaluate’ a conclusion should have been provided by the candidates relating to the use of decision tables. Candidates must be encouraged to provide responses that are well structured and, in the case of the requirements of the highest mark bands, coherent.

G055: Networking solutions

General comments:

Tasks prepared before the examination were clearly labelled and in the order 1, 2, 3, making it clear what had been submitted for assessment and where each section started.

Pre-prepared tasks were, in general, related to the given case study. However, it was rare to find an examination paper where the answers were wholly related to the case study.

Task 2

This was generally quite well prepared with candidates accessing at least two of the three available marks for the network diagram. Candidates most often failed to gain the final mark because they had not clearly identified how the various components were linked together. Some candidates had not fully understood the requirements of the case study and omitted to include any wireless access points.

The table was often completed well. Few components were listed in the table but not labelled on the diagram. Candidates often described, rather than justified, the inclusion of the components they identified and often did not refer to the case study.

Many candidates failed to submit an evaluation and a number evaluated their design rather than their approach to the task. Good evaluations were rare.

Task 3

Candidates were generally able to identify suitable protocols such as TCP, IP, FTP and NetBEUI. Candidates could identify how the protocols were used but most did not apply those uses to the case study and so were unable to assess suitability and gain the higher marks.

1 Candidates were able to identify advantages and disadvantages but often failed to relate them to the case study and therefore did not access all the available marks.

2 In general, most candidates were able to identify at least one connector successfully. In some instances marks were lost because candidates explained why the connector, rather than the transmission media was suitable. Again, suitability statements were not related to the case study. Most candidates, consequently, were awarded only half the marks.

3 There was little reference to the case study making the higher marks more difficult to access for candidates. Most were able to describe a file server and a switch in terms of their functions. A number of candidates described a printer connected to a print server rather than a network printer. A number of candidates confused ‘function’ with ‘purpose’.

4 Again, a number of candidates described the purpose of the different types of software rather than how the centre could use the software.

5 Part a) was generally well answered. Almost all candidates drew a star network and most had a suitable device at the centre. A number of candidates named a server as a central connecting device, although these were fewer than in previous sessions. Candidates most often lost marks for not showing the direction of flow of data.

For part b) candidates gained both marks if they had read the question carefully and described the path of the data from a small business network to the centre's data storage device.

Part c) was generally well answered with advantages and disadvantages relevant to the type and size of the network.

6 Part a) was often answered in terms of the purpose of a client-server network rather than how it might be used. Part b) was often better answered with the answers from part a) often being repeated. Candidates should be aware of where they are repeating answers and review the questions involved. A number of candidates referred to a 'client-server' giving a description of a file server.

7 There was little reference in part a) to the size of the bandwidth available through a broadband connection and, again, little reference to the situation presented in the case study.

For part b) most candidates were able to identify that the connection would slow down but very few were able to state what was happening to cause this.

Candidates often gained one mark for part c) for identifying the calculation for working out data transfer time. Where candidates were able to identify the difference in number of bits between Kilo and Mega they could generally calculate the correct answer.

8 A number of candidates missed the point of this question and described how a shared broadband connection could be made within the centre. The question asked for methods and a candidate who was describing only one solution should recognise that they were on the wrong track.

Where candidates did identify some different methods they were able to identify equipment and how some of this equipment might be used. There was little reference to the case study and so the higher marks were not often accessed.

9 A significant number of candidates referred to cabling and its risk to safety, indicating that they had not read the question fully or that they had failed to understand the difference between safety and health issues.

10 Most candidates were able to identify HTTP as the protocol. Many described it as a protocol for requesting and receiving web pages, a repetition of the question, this is to be discouraged as it takes up answering space, giving the impression that the candidate has given a fuller answer than they have.

11 Although many candidates' answers indicated that they had an underlying understanding of what a VPN is, they were often unable to explain how one functions or where one might be used. This was a poorly answered question.

12 Many candidates were able to identify the device that was having problems receiving and most gained at least one mark. The majority of candidates did not look any further than the final two columns, failing to identify that files were of a variety of sizes and types and from a variety of sources.

13 Again, candidates often knew vaguely what an extranet is but could not express this knowledge clearly. Most gained just one of the two marks for part a).

For part b) a number of candidates failed to relate the use of the extranet to a college. Others used their own experience well to describe a variety of uses. Where these latter candidates did not gain the full three marks it was often because they had described particular instances of the same use.

Grade Thresholds

Applied GCE (H115/H315/H515/H715)
GCE Applied ICT (H115/H315/H515/H715)

January 2010 Examination Series

Coursework Unit Threshold Marks

Unit		Maximum Mark	A	B	C	D	E	U
G040	Raw	50	43	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G042	Raw	50	43	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G043	Raw	50	43	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G044	Raw	50	43	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G045	Raw	50	43	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G046	Raw	50	43	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G047	Raw	50	43	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G048	Raw	50	43	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G049	Raw	50	44	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G050	Raw	50	44	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G051	Raw	50	44	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G052	Raw	50	44	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G053	Raw	50	44	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G056	Raw	50	44	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G057	Raw	50	44	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G058	Raw	50	44	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G059	Raw	50	44	38	33	28	23	0
	UMS	100	80	70	60	50	40	0

Examined Unit Threshold Marks

Unit		Maximum Mark	A	B	C	D	E	U
G041	Raw	100	75	67	60	53	46	0
	UMS	100	80	70	60	50	40	0
G054	Raw	100	68	61	54	47	41	0
	UMS	100	80	70	60	50	40	0
G055	Raw	100	68	60	53	46	39	0
	UMS	100	80	70	60	50	40	0

Specification Aggregation Results

Uniform marks correspond to overall grades as follows.
Advanced Subsidiary GCE (H115):

Overall Grade	A	B	C	D	E
UMS (max 300)	240	210	180	150	120

Advanced Subsidiary GCE (Double Award) (H315):

Overall Grade	AA	AB	BB	BC	CC	CD	DD	DE	EE
UMS (max 600)	480	450	420	390	360	330	300	270	240

Advanced GCE (H515):

Overall Grade	A	B	C	D	E	U
UMS (max 600)	480	420	360	300	240	0

Advanced GCE (Double Award) (H715):

Overall Grade	AA	AB	BB	BC	CC	CD	DD	DE	EE
UMS (max 1200)	960	900	840	780	720	660	600	540	480

Cumulative Percentage in Grade

Advanced Subsidiary GCE (H115):

A	B	C	D	E	U
1.8	14.5	37.7	69.6	90.4	100
There were 457 candidates aggregating in January 2010.					

Advanced Subsidiary GCE (Double Award) (H315):

AA	AB	BB	BC	CC	CD	DD	DE	EE	U
0	0	0	16.7	25	41.7	50	66.7	91.7	100
There were 27 candidates aggregating in January 2010.									

Advanced GCE (H515):

A	B	C	D	E	U
1.9	15.1	34	79.2	96.2	100
There were 56 candidates aggregating in January 2010.					

Advanced GCE (Double Award) (H715):

AA	AB	BB	BC	CC	CD	DD	DE	EE	U
0	0	10	20	30	40	50	50	50	100
There were 9 candidates aggregating in January 2010.									

For a description of how UMS marks are calculated see:
http://www.ocr.org.uk/learners/ums/index.html

Statistics are correct at the time of publication.

OCR (Oxford Cambridge and RSA Examinations)
1 Hills Road
Cambridge
CB1 2EU

OCR Customer Contact Centre

14 – 19 Qualifications (General)
Telephone: 01223 553998
Facsimile: 01223 552627
Email: general.qualifications@ocr.org.uk

www.ocr.org.uk

For staff training purposes and as part of our quality assurance programme your call may be recorded or monitored

OCR (Oxford Cambridge and RSA Examinations)
Head office
Telephone: 01223 552552
Facsimile: 01223 552553