

**Applied ICT**

Advanced GCE H515/H715

Advanced Subsidiary GCE H115/H315

**Report on the Units**

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**June 2007**

**H115/H315/MS/R/07**

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## **Chief Examiner's Report GCE AICT – June 2007**

This session has brought a significant increase in the entries for the AS units, particularly those for the 3-unit award. It was also the first summer session for the A2 units.

Generally, work submitted for both examined and moderated units was of an appropriate standard but Centres are reminded that, whilst AS units are at a slightly lower standard than the equivalent VCE units, A2 units should be of a slightly higher standard. To maintain the integrity of the qualification and ensure that it is considered to be on a par with the academic GCEs, it is vital that the required standard is demonstrated.

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.

On the written papers, candidates continue to fail to access the top 20%, and sometimes more, of the mark range. This was partly due to poor responses in section B of the papers. Centres are reminded of the need to teach the concepts covered in the What You Need to Learn section of the units, as well as preparing candidates to complete the pre-released tasks.

Candidates should be encouraged to ask for supplementary sheets if they run out of space, rather than answering elsewhere on the paper or in the margin, making the answers difficult to read. If supplementary sheets are used, candidates should be instructed to indicate that their answer is continued, rather than leave the Examiner to find the rest of their answer.

Generally the quantity and organisation of pre-release work was appropriate. However, some candidates failed to specifically identify their responses to the marked tasks. This made it 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.

Centres are reminded that candidates should only submit work carried out in response to the tasks for use in the examination. General class notes based on the What You Need to Learn section of the unit 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.

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. Candidates also need to be taught the difference between using material from websites and other sources to inform their responses and simply copying it. This applies to both coursework and pre-released tasks. All units require the application of knowledge to a particular situation, so

*Report on the Units taken in June 2007*

the simple copying of material is unlikely to meet the requirements of the task and may well be considered to be plagiarism.

Some Centres submitted pre-release work in plastic pockets or even folders. The papers are now hole-punched to allow the work to be attached using a treasury tag through the top left-hand corner. Please ensure that all pre-release work is attached in this way in future. 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.

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.

Similarly, 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 (AS Units) – June 2007**

### **General Comments**

Moderation this session covered the many Centres new to this qualification, those who had not been accredited and the accredited Centres that were being randomly sampled. Although many Centres had assessed the work accurately, a significant number had not, resulting in significant scaling in some cases. There were also instances where assessment had not been standardised within the Centre, resulting in an invalid order of merit.

Consortia were a significant issue this session. Where Centres share candidates, it is vital that the assessment across the whole consortium is standardised and that OCR are aware of these arrangements so that the Centres involved can be assigned to the same Moderator. In more than one instance work had to be returned to consortium Centres for re-assessment because the order of merit in one or both of the Centres was invalid.

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.

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. It is also most helpful if Assessors annotate the work to indicate where particular aspects of a task have been achieved at a particular mark band. Please use the task letters, rather than assessment objectives.

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.

As before, the moderation process was delayed while incorrect marks recorded on the MS1 mark sheet were corrected. Centres must ensure that task marks are totalled accurately, that the total mark is shown on the unit recording sheet and that this is correctly transferred to the MS1. If the total is changed due to internal standardisation or the addition of work, please ensure the relevant task mark is changed as well as the total. 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.

Centres are reminded that, in general, only the mark sheets should be sent to the Moderator by the deadline date. The Moderator will select and request the sample required, which should be despatched as quickly as possible. However, where only 10 or fewer candidates are submitting work, **all** the work **must** be sent with the mark sheet by the deadline date.

Again, many problems were caused this session due to poor administration in Centres and failure to send mark sheets to Moderators by the deadline. The importance of meeting the prescribed deadline for mark submission cannot be over-emphasised. Where the Moderator receives the marks late, the whole process is delayed and may mean that candidate results are also delayed.

Centres are also reminded of the need to complete and include Centre Authentication forms (CCS160) with the work. 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.

Although more Centres are using treasury tags or other suitable methods to secure the work sent, plastic pockets and plastic folders were too often still being used as, occasionally, were ring binders. These should be avoided.

### **Comments on Individual Units**

#### **G040 – Using ICT to communicate**

There were a significant number of entries for this unit and full range of marks from 0 to 50 was applied, accurately in most cases and less so in others. 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 Intermediate GNVQ/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.

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**

The requirement for this task is that candidates describe and compare 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.

Writing style was too often confused with 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 candidates had produced very detailed descriptions and comparisons of the documents but had included little indication of what was good or bad about them or how well they met their purpose. Candidates tend to score better if their report is structured under headings that relate to the task requirements.

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 most, if not 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.

### **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. It is expected that even at mark band 1 the documents have been checked so that few obvious errors remain. This was often overlooked. Planning needs to be included for all, or nearly all, six documents to achieve mark bands 2 or 3. For mark band 3 the planning must be detailed. Candidates should consider the layout, content and aspects such as font style and colour schemes.

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. This should include improvements to the layout and positioning of elements as well as proof reading the text. Again, annotated drafts should be included for all documents. 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. The listing of sources was often the poorest aspect of this task. At mark band 3 a detailed bibliography is required. This was rarely seen in candidates' work.

### **Task bii**

Although it is not necessary to include extensive before and after printouts to show how information was located and adapted, 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. To reach mark band 3, the communications should be of near professional standard. 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 consistently high standard.

### **Task biii**

Again, annotation would help to show the Moderator where the automated features required by mark band 3 have been used. Centres are reminded that the key terms in this task are 'appropriate use', 'suit the purpose' and 'improve impact'. 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.

### **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 at the top of page 5 in the What You Need to Learn section of the unit specification. To achieve mark band 2 or 3, candidates would be expected to describe at least six of the communication methods listed. There was some confusion between types of information and communication methods. The technologies that support communication methods were often omitted or lacking the detail required.

Candidates are unlikely to be able to provide the level of detail required by mark band 3 in a slide presentation alone. The required detail could be provided in presenter notes to accompany the presentation. Centres are reminded that the term 'presentation' is used in its widest sense. 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.

### **G042 – ICT solutions for individuals and society**

Once again, this unit probably attracted more scaling than any other. This was largely due to a lack of suitable evidence to show what candidates had actually done. Candidates need as much guidance on how to present their evidence as they do on how to search for information, analyse it and present results. In some cases, candidates had aimed their evidence at mark band 3 and failed to include the required evidence of development through the task. However, some Centres had 'got it right' and candidates had produced excellent evidence.

Centres are reminded that all of the tasks, with the possible exception of task b, should relate to a single investigation. Guidance on the evidence required for this unit has been given out at OCR training events and is available in the documents section of the e-list. This can be accessed at <http://community.ocr.org.uk/lists/listinfo/ict-gce-applied>. The document 'Unit 3 – Further Guidance' can be found in the Public Documents and Resources section, so can be accessed if you have not yet subscribed to the e-list.

### **Task a**

Although some good evidence was seen for this task, some 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.

To reach mark band 2 the advanced search facilities must be used, while mark band 3 requires the use of logical operators in the standard search box. Many candidates had approached this task 'back to front' by using logical operators and then going back to using advanced search facilities. 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. Too often, logical operators were being used within the fields of the advanced search option when the whole point of the task is that more efficient searching is carried out by using these operators rather than the advanced search options.

Too often also, poor use had been made of both the advanced search facilities and logical operators. Entering a single word in the 'exact phrase' box, for example, is unlikely to make much difference to the search results, as is the use of AND in Google or any operator in lower case. Google and other search engines provide useful help on the use of operators and candidates should be encouraged to follow this guidance. Candidates should also be encouraged to use a range of operators including OR or NOT (-), as well as AND (+).

Mark band 2 requires a comparison of results as well as the use of advanced searches, while mark band 3 requires justification of the most appropriate search engine. We would expect candidates working at mark band 3 to show progression from mark band 2, i.e. they need to show the use of the advanced options of more than one search engine and compare the results to inform their choice of the most appropriate.

### **Task b**

There was 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. This session produced a number of reports entitled 'How organisations communicate', i.e. Centres had addressed the mark band 3 criterion, rather than the banner of the assessment evidence grid which asks for 'an explanation of the availability of electronic information on individuals and society'. The resultant report often related more to the requirements of task bv in G040 than this task.

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.

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.

### **Task c**

This task requires evidence of the use of a large website to find required information. The information required needs to be identified and candidates then need to provide evidence of how they located it. A witness statement may be used, but this should indicate what methods were used or what searches were carried out and what information was found, as well as confirming that this was done independently. Candidates should also include screen shot evidence.

#### **Task d**

This task requires evidence of complex searches involving both relational (= > < etc) and logical (AND, OR, NOT) operators. For mark bands 2 and 3, both on-line and local databases must be evidenced. Evidence of searching on-line databases may be linked with task c if an internal search engine has been used, but not to the use of generic search engines in task a. Most on-line databases will provide an internal search engine. Where it is possible to select two or more criteria, this is equivalent to AND, and if several options are selected within one criterion, this is equivalent to OR.

For the local database, it is not sufficient to use a table in a spreadsheet as it is not then possible to easily demonstrate the required complex searches or to present the results as a database report.

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 and must be printed out, rather than simply screen printed. 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 e**

Although some good spreadsheet evidence was seen, much did not demonstrate sufficiently complex analysis. The document mentioned at the beginning of this section 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.

#### **Task f**

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. As in G040, the term presentation should be taken in its widest sense. 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. Too often this session, the presentation for task f simply repeated the methods used, with screen prints of searches and how the spreadsheet was created. In some cases the headings were the six types of information listed in section 3.2.6 of the unit specification. Whilst this may ensure that all six are included, it will not produce a well thought out presentation that presents the investigation results coherently. 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.

### **Task g**

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. 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.

### **G043 – System specification and configuration**

Fewer Centres included photographic evidence of assembling hardware this session, although there are still a few Centres that are still using VCE assignments and observation records that do not match the requirements of this unit.

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 will be input and how the output will be presented. This should not include consideration of input and output devices or the software required, which form part of task b. In task b, candidates should use these detailed requirements to specify a system that can carry them out. As well as specifying the hardware and software required, candidates must include the specification of any required configuration and, for mark band 3, 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.

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. Candidates must include a test specification and 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.

Similarly, candidates need to include clear evidence of the design of templates, toolbars, menus and macros and annotated screen prints or printouts of those that they create. Any screen prints must be large enough for the content to be read. All four items must be evidenced and, to go beyond mark band 1, there must be evidence of testing. For mark band 3, the installed templates, toolbars, menus and macros must be those designed by the candidate and must demonstrably improve the efficiency of the user.

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 section 4.2.4 in the unit specification. While most ergonomic issues were covered, management issues were rarely covered in sufficient detail.

More Centres are correctly addressing task f, although a little more detail is required. Centres should refer to section 4.2.3 of the unit specification. Descriptions of the stages of the Systems Life Cycle are 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. The second could be produced immediately after completing the practical tasks and consider how they went about them, any problems that arose, how these were overcome and how they might approach a similar task in the future. As with other units, for mark band 3 this should be ongoing.

### **G044 – Problem solving using ICT**

The entry for this unit was comparatively small, resulting in only a very small number of Centres being moderated. Some candidates had made a reasonable attempt at producing the evidence required, although there were also some serious misconceptions. The majority of Centres used one of the scenarios issued by OCR or based their own scenario on one of them. However, in a few instances the problem set did not provide sufficient scope for candidates to produce meaningful evidence. Where candidates gained low marks it was often because they simply regurgitated theory, rather than applying it to the scenario provided. Although weaker candidates had clearly only used the information provided in the AS text book, more able candidates had carried out thorough research on types of information, types of software and quality procedures and had applied this to the scenario. There were good examples of system diagrams, although explanations of the system boundaries and environment lacked detail. Evaluation was also a weak area. Candidates must detail the goals, aims and objectives of their solution in task b, so that they can evaluate, in task g, whether these have been met.

### **G045 – Software development – design**

Evidence submitted for this unit was generally of a good standard, although there were some Centres who had assessed it somewhat leniently. Despite the title of this unit, some candidates described alternative hardware, rather than software, solutions.

There are two parts to the assessment evidence for this unit. Tasks a, b and c are theoretical, identifying and describing the tools and techniques available. Task d to g relate to the solution of a given problem. Where Centres had attempted to combine these two aspects, candidates rarely covered the requirements of tasks a to c sufficiently.

#### **Tasks a, b and c**

To achieve mark band 3 for these tasks, candidates need to research the tools and techniques available so that they can describe a wide range, going beyond those listed in the unit specification. Although there is overlap between the stages, candidates were often confused as to which tools are used for analysis, which are used for design and which are used for investigation. It may help to consider section 6.2.3 of the unit specification, as far as the penultimate bullet list on page 72, in relation to task a. Although they can form part of analysis, decision tables, flowcharts and structured English are often part of system design, so task b should include these and the content of 6.2.4. Task c should include the content of 6.2.2.

#### **Task d**

The report for this task should include both feasibility and design. The latter was lacking in some cases. As indicated above, the alternative solutions should relate to software rather than hardware, although some consideration of hardware should be included. While some excellent reports were produced with detailed alternative solutions and full consideration of technical, economic, legal, operational and social feasibility, others provided very limited alternatives with only a passing consideration of costs and benefits. The number of marks available for this task should be taken as a guide to the depth of evidence required. As with task a in G040, insufficient account was taken of poor spelling, grammar and punctuation when awarding marks for this task.

#### **Task e**

Most candidates attempted to produce DFDs using formal graphical representation with varying degrees of success. Both level 0 and level 1 DFDs are required for mark band 3. However, mark band 3 was often not achieved because the documentation lacked the detail required. All entities, processes, stores and data flows need to be described in detail to achieve mark band 3. Also, in some cases, there were clear errors in the diagrams produced, such as no indication of the direction of data flows or diagrams with entities and processes but no data stores.

### **Task f**

Again, although some good ERDs were seen, the documentation limited the mark awarded. A detailed data dictionary should accompany the ERD to reach mark band 3. A number of ERDs were seen that contained obvious errors or where many to many relationships had not been resolved. Such diagrams are not acceptable for mark band 3 or even, in some cases, mark band 2.

### **Task g**

This task requires candidates to evaluate both the solution and their own performance. Whilst there was sometimes good evidence of one or the other aspect, there was rarely good evidence of both.

### **G046 – Communicating using computers**

The work submitted for this unit was generally appropriate and in most cases had been accurately assessed, although there was some lenient assessment. 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 not always overtly stated.

Centres should refer to section 7.2.6 to identify what is meant by Internet technologies for tasks bi and di. Discussion of HTML is not sufficient. 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. 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.

In task c, candidates tended only to consider the costs of hosting the site online. Bandwidth was given little consideration in some cases 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. 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.

In task di, candidates must identify the Internet technology they have used in their web page to achieve mark band 2. In task dii, candidates should not be penalised because they have not hosted their webpage online. This task is about evaluating what they did.

Centres should endeavour to ensure that candidates have the opportunity to install three pieces of communications software so that they have the opportunity of achieving mark band 3 in task e. It is not possible to cross reference the descriptions of hardware, software etc for this task 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. For maximum marks, candidates need to produce a high quality user guide for installing and configuring the communications software. This should be separate from the evidence that they actually carried out the installation. 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. 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 software that can be installed for this task.

### **G047 – Introduction to programming**

Although some candidates who submitted work for this unit had been well taught and produced suitable evidence, others had followed a very minimalist approach. If all that candidates submit is the annotated code that they have produced, the Moderator cannot determine whether the programs actually run, making it difficult to confirm the marks awarded in both tasks ai and aiii. Candidates should state clearly what user need each program is designed to meet, so that the Moderator can judge whether the program meets the requirements. They should also be encouraged to include designs for the program, both in terms of the structure of the code and screen design. Although not overtly part of the assessment evidence, this is good programming practice. As well as the annotated code, candidates should include a test specification and evidence of testing to show that the program runs as designed. At the very least they must include screen prints to show stages of the program running.

Also, although the evidence requires a number of simple programs, many were too simple, generating only a few lines of code. Programs should be sufficiently complex for a range of programming techniques to be incorporated. Clearer evidence of the use of modularity and file handling is needed for mark band 3 of tasks ai and aiii. In particular, when using VB, candidates would be expected to use and call procedures, rather than simply using the subroutines associated with a button. Evidence of annotation is often clearer if the code is copied into a word processed document so that comments can be added in a different font style, colour or attribute to distinguish it from the code.

Although most candidates had used a version of visual basic for task a, a variety of languages were used for task b including Java, Pascal and C. Most of the programs provided for task b were suitable, with many Centres using one of those provided in the sample assignments. However, in some cases the programs were too simple for candidates to demonstrate the understanding required for higher mark bands. Candidates **must** annotate the program listings to gain marks in any of the three sections of task b. This must use a different programming language and cannot be the annotation of the programs written for task a. They must use ICT tools to do so. This may be either the comment tool in the programming language or, as suggested above, comments entered using a word processing package. To be awarded marks in mark band 3 of tasks bii and biii, candidates must provide detailed explanation of the code, for example the purpose of a sub-routine and how it is called by the program. There should also be no errors or misconceptions in the explanations. As well as actually annotating individual lines of code, candidates should give some indication of what the program is designed to do.



*Report on the Units taken in June 2007*

Task c requires evaluation of the programs in relation to the user's needs, evaluation of the suitability of the programming languages used and evaluation of the candidate's own performance. Coverage of all three aspects was rare in most of the work seen. If there is no indication of what the user requires of the programs written for task a, it is difficult for candidates to evaluate how well those needs have been met and for the Moderator to determine the accuracy of comments made.

## **Principal Moderator's Report GCE Applied ICT (A2 Units) – June 2007**

### **Comments on Individual Units**

#### **Unit G049 Numerical Modelling Using Spreadsheets**

For this unit candidates were required to produce:

- a design specification that analysed a suitable problem and described how they would 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 explained how their spreadsheet works, and user documentation that explained how it is used;
- an evaluation of the effectiveness of their solution and their personal performance.

A significant number of Centres failed to identify that the emphasis of this unit is on numerical modelling rather than data manipulation. 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 by some candidate showed clear evidence of the use of complex spreadsheet facilities, as listed in section 10.2.3 of the unit, as well as clear evidence of a range of spreadsheet functions appropriate to the solution of the problem. 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 was carried out poorly by the majority of 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 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.

Few candidates performed well in task f. In most cases the evaluation was descriptive rather than critical. 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 commercially produced interactive multimedia products showing how their design influenced the design of the interactive multimedia product that they produced;
- 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.

Centres need to give careful consideration to the software used to evidence this unit. Section 11.2.4 indicates the types of interaction that could be incorporated into the final product. Not all multimedia software will facilitate the majority of these.

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 small number of candidates evaluated websites rather than multimedia products. This disadvantaged candidates as many of the sites only demonstrated hyperlinks and the candidates did not have the opportunity to consider the user documentation, bearing in mind that they have to create user documentation for their own product in task e.

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 required evidence of the use of a variety of ICT skills to produce a multimedia solution. The nature of these skills is identified in section 11.2.4 of the unit. Candidates should 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 cii 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.

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. As already indicated, the user guide needs to include details of the system specification for the product and details of how to install the product.

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.

## **G051 Publishing**

For this unit candidates were required to produce:

- notes taken during an initial, and any subsequent, meeting with a client, evidence of negotiating and amending a brief for the production of a camera ready copy (CRC) document;
- evidence of the drafting and production of a CRC of their final document to meet the brief and, in so doing, show that they could create and capture images, as well as import material from other packages, utilise object libraries such as clipart, and select and further develop images to meet the style and content of the final copy, as negotiated with the client;
- a CRC document, of at least ten pages, that combined different types of information presented to the client for approval, together with a letter which correctly described 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.

The evidence of the meeting(s) with client varied greatly. If the candidates cannot access real clients, then the teacher, or other suitable person, should act as the client.

Evidence for task bii frequently lacked evidence of the design stage processes. To access marks in mark band 2 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.

Higher marks in task ci required clear evidence of using more than four text styles, more than two text attributes and 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.

Task d requires analysis of the CRC and how the solution was refined to meet the client's needs. Candidates in mark band 3 will produce a critical analysis of the development of the product. 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:
  - a range of initial proposals in response to a complex problem;
  - development of a final product, showing editing techniques;
- an evaluation of both the final product, including consideration of the hardware and software used, and their own performance.

In task a some candidates failed to include 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.

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 bii 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 biv varied greatly as some candidates provided clear evidence of the development of the final product, including manipulation of material as part of the process.

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 detail the printer type, media or resolution that were appropriate. Candidates that appeared to have limited experience on working with computer graphics 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;
- design notes for their website of at least three pages together with detailed plans for publishing your website;
- annotated print outs of their own web pages in WYSIWYG 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;
- an evaluation both of their website and the tools used to produce it and of their own performance.

For task a many 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.

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 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.

Evidence of understanding HTML script 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 as 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.

In task e a small number of candidates failed to ensure that the website met the design specification; explicit evidence of this is required.

Task f required candidates to produce a critical analysis of their website in order to gain higher marks. An analysis of their 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 describe how the specification meets the program requirements and how user's needs have been considered;
- a program design arising from the specification;
- an annotated modular program to realise the design;
- 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 own performance.

Insufficient candidates entered in this moderation series in order make substantial comments. On the whole, evidence was assessed at an appropriate level for this unit.

## **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:

- design and analysis notes, including normalisation of the data model;
- a user interface, including data input forms and methods of obtaining output;
- a working relational database;
- user and technical documentation;
- testing of the database produced;
- an evaluation of the database;
- an evaluation of their own performance.

In order to access mark points beyond mark band 1, 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 3<sup>rd</sup> 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.

The data input forms for task b 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. More able candidates designed reports with evidence of grouping, arithmetic formulae and used data from more than one table.

The database documentation must enable somebody else to maintain the database. The use of software generated technical documentation does not demonstrate an understanding by the candidate of the evidence generated; such reports need to be annotated if they are used. Design documentation created by the candidate often showed a greater understanding of the design of the database for task d.

Testing of the database 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 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.

In task a many candidates had failed to consider supplementary questions to ask the user; this restricted the mark to the lower mark bands.

Evidence for task b was often based solely on material found on the internet. Candidates need to evidence the use of paper-based sources in order to access mark band 2. Evidence was lacking to show that user requirements had been renegotiated as a result of findings. Future-proofing was required for mark band 3 and was overlooked by some candidates hoping to access these mark points. In many cases the feedback to the user contained too much technical jargon, restricting the comprehension for the user.

Some good evidence was presented for task c; the selection of components. To access the higher mark points candidates had to evidence carrying out an upgrade that required additional components to be added to the system or the system to be reconfigured.

Many Centres provided sound evidence for task d, the upgrade to a system. This often included a detailed observation record and/or supporting photographic evidence.

Likewise task e often had a detailed observation record and/or supporting photographic evidence to that testing had been carried out. Few candidates indexed the problems encountered in a manner that aided solving similar problems in the future.

The quality of the candidate evidence for task f was closely related to the quality of the evidence in task b. Candidates who used only a limited range of information sources were unable compare the information sources or consider the accuracy, currency and relevance of the information sources. In order to access the higher mark bands a range of sources had to be used to find the same information otherwise no comparison or critical evaluation could be carried out.

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



## **G059 ICT Solutions for People with Individual Needs**

For this unit candidates were required to produce evidence that:

- showed an understanding of legislation and the rights of each of the individuals in connection with the ICT solutions suggested;
- showed a clear understanding of the disabilities or limiting factors, and resultant needs, identifying and showing suitable items of equipment and software as appropriate;
- for at least one case study, provided a specification for a complete system, to include configuration and customisation of software and equipment as appropriate and demonstrate that they could customise the available operating system and applications;
- evaluated the viability and effectiveness of your proposed solutions, indicating how the solutions would enhance the quality of life for each individual;
- presented 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.

Evidence for task a, on a few occasions, extended unnecessarily beyond the legislation listed in section 20.2.7 of the unit.

Task b was, on the whole, evidence 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.

Evidence requirements for task c 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 cii 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.

Task d required candidates to produce an analysis of their solutions in order to gain higher marks.

Task e 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.

## **Report for Publication to Centres**

### **G041**

#### **1 General Comments**

Performance on this paper was disappointing compared with previous sessions. Very few candidates managed to access the top 20% of the mark range, while there were a significant number with very low marks – sometimes whole Centres.

Candidates generally had a good understanding of the work covered, but were unable to add detail and expansion. Although most candidates attempted all of the questions, many had not read the question carefully and gave answers that gained few marks. The need to read the question carefully and answer accordingly cannot be over-emphasised. Whilst many had produced good quality pre-release material to help them in the exam, others included little or no pre-release for Task 1, which hampered their ability to answer the questions in section A.

There were a number of instances where the wrong tasks had been attempted. In most cases these were tasks 2 and 3 for January 2007, although a few had used a previous case study. Centres must ensure that candidates submit the correct tasks for the session and are reminded that tasks 2 and 3 change from January to June. No marks will be awarded if the wrong tasks have been submitted.

Centres are also reminded that all three tasks must be submitted to the Examiner with the examination paper. There were a number of instances when task 1 was not submitted by whole Centres, although candidate responses suggested that this task had been completed and used in the examination. Centres are also reminded that candidates should only include their responses to the tasks set. Class notes on other legislation or on aspects of the What You Need to Learn section of the unit must not be taken in to the examination.

Most pre-prepared work was word processed and most candidates had clearly labelled tasks 2 and 3, although in some cases they were not easy to find. Task 3 requires a word-processed report. Examiners were instructed not to award marks for this task if it was hand-written. However, hand-drawn diagrams for task 2 are acceptable and candidates may benefit from hand-drawing the information flow diagram, or at least hand-labelling the information flows, as marks were lost due to candidates' inability to manipulate text boxes.

It would be helpful if Centres could clearly distinguish between T1, T2 and T3, 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. Although most Centres had attached the work with a treasury tag as requested, there were still some who used plastic pockets or even plastic or envelope folders to hold the pre-released tasks. Please do not do so. The work should be hole-punched in the top left hand corner and attached to the paper with a treasury tag through the hole provided.

Centres are also reminded of the need to check the work carefully, but not mark it, before signing the Centre Authentication Form. There were fewer instances of identical information flow diagrams than have been seen in the past but too many did appear. Candidates should also be warned that it is very obvious when they simply copy and paste from a website for task 3. This session, the need to include a list of sources was included in the instructions for task 3. Some candidates still failed to do so.

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 diagrams created for task 2 and the topics addressed in task 3 were similar for all candidates within a Centre.

Centres are reminded of the need to cover the content of the What You Need to Learn section of the unit 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 this section.

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. It is worth noting that the notice on the front of the paper that 'answers written elsewhere will not be marked' relates only to those qualifications where the paper is scanned and marked on screen. It does not apply to this paper.

## **2 Comments on Individual Questions**

### **Task 2**

Many candidates produced a suitable diagram in response to this task and many scored well. However, there were a number of instances of inappropriate diagrams, in particular data flow diagrams. Whilst both information flow diagrams and data flow diagrams show the movement of information, data flow diagrams relate to processes and do not sufficiently isolate the senders and receivers of information, as required by this task. Candidates who drew data flow diagrams rarely gained more than one or two marks for any entities that were external to the system. The type of diagram required is shown in the mark scheme.

Marks were most often lost because of the candidates' inability to manipulate text boxes so that the labelling of the information flows was ambiguous. Candidates may find it easier to label the flows unambiguously if they hand write the labels on the arrows.

Some candidates lost marks because they had described what the sender/receiver did, rather than simply identifying them. Similarly, marks were lost when candidates described processes on the arrows, such as 'the Membership Manager detaches the direct debit mandate and hands it to the Finance Clerk', rather than identifying the information and method, i.e. 'direct debit mandate by hand'. It is also important that the information being passed is accurately identified. For example, in this case it is a direct debit mandate that is being passed, not simply a direct debit. Similarly, an application form is sent, not just an application.

Incorrect identification of the sender/receiver of information also lost candidates marks. In particular, if a family is applying for membership, they are not yet members or customers, so these responses were incorrect. Family or potential member/customer, were acceptable responses. Candidates should be encouraged to use the job titles etc. given in the case study, rather than their own interpretation.

Centres are reminded that:

- the senders and receivers of information must be identified – preferably in a box
- a separate arrow should be drawn for each identified information flow
- the information and method only should be indicated on each arrow in such a way that there is no ambiguity
- there should be no description of processes – labels should be nouns, not verbs
- the boxes should be arranged so that arrows do not cross or go round corners
- diagrams should be large enough for the labelling to be clear and unambiguous

- the use of numbered arrows with a separate table of information and methods should be discouraged.

### **Task 3**

This task was poorly attempted by many, with very few explaining both positive and negative impacts on staff to access the highest mark band. Many candidates were restricted to the lowest mark band because they restated the aims of the health and safety legislation with little or no attempt to apply it to the organisation. Such responses can easily lead to plagiarism because candidates simply copy and paste material, rather than using their own words to interpret it.

To access the middle mark band, it is not sufficient to simply scatter the name of the organisation throughout their response. Candidates must give specific examples of how the legislation applies to the organisation. For example, they might suggest that the receptionist's work should be planned so that there are breaks or changes in activity, or that the human resources staff should be responsible for bringing the health and safety policy to the attention of staff.

The final mark awarded within a mark band was dependent on the quality of the candidates' written communication. Candidates must ensure that they both spell check and proof read their work before submission. Examiners are judging the accuracy of the grammar and punctuation used, as well as spelling.

Most candidates gained some marks for their evaluation for AO4, although some only submitted a bibliography, which did not gain marks. However, many who did attempt an evaluation only commented on their sources, rather than what they did well or badly.

Candidates are required to include a word count for this task. They should be taught how to include this using the NumWords field, rather than screen printing the document information dialogue box, often on a separate sheet.

#### **Question Number**

- 1 Those candidates who accurately identified a job function generally went on to gain all five marks. A number of candidates lost marks by identifying one of the managers. This was not acceptable and meant no marks could be awarded. The What You Need to Learn section of the unit identifies a range of job functions and goes on to state that these may be structured in departments and there will be a manager for each department.
- 2 This question required a thorough reading of the case study, as the duties of the Sports Manager were not all in one section. Despite this, the question was generally well answered, although some lost marks because they merely hinted at the duties, rather than describing them in detail. Others made their answers a little too vague to gain marks; for example monitoring or training coaches and lifeguards, rather than managing them. Weaker candidates gave tasks relating to the coaches, rather than the Manager, or only took their answers from one section of the case study, rather than looking further to later descriptions.
- 3 The first part of this was answered very well, with the majority of candidates being aware that the application form is used, and it is sent or posted to the potential member. The second part was variable, although many candidates gained full marks by listing information which could be used as personal details or contact details. It was, however, quite common to find candidates writing about the booking process rather than membership applications.

- 4 This is the question where candidates lost marks because they failed to read it properly. Generally parts (b) and (c) were weak; some candidates missing the fact that it was the membership accounts system rather than membership system that was referred to.

Answers to both this question and question 3 suggest that many candidates are not looking at the examples of the documents reproduced in the case study. Although candidates will not at this stage in their course have studied systems analysis, it would be useful for teachers to emphasise the importance of studying forms and documents when analysing a business.

Part a: Few candidates identified the correct inputs to the system, though most managed to gain some marks for how the information was collected. There seemed to be some confusion for some candidates who did not identify the correct part of the system.

Part b: This was either very well answered or very poorly answered. A number of candidates seemed to miss the point of the question and talk about how a member joins the club or gave an answer that should have been in aii about the receptionist gathering information.

Part c: Many candidates did not correctly identify the two outputs, giving booking confirmation slip or direct debit instruction, not picking the outputs associated with the accounts system. Candidates were not able to adequately describe the itemised account, this would mainly have been gained by looking at the example, though most could give the content of the summary list.

- 5 The hardware section was well answered, with many candidates seeming to get on a roll and gain four or five points. The software section was also well answered with the majority of candidates being aware that there is a database which stores stock, although a common error was talking about general office software and using brand names. Some lost marks because their answers related to the booking, rather than the shop system.

For input data, although candidates seemed aware that something was scanned in, they rarely mentioned the product code. Outputs were also fairly poorly answered, as candidates were aware that a receipt was produced, but no detail was given.

Inputs, outputs and processes are still confusing a number of candidates and probably need to be taught more thoroughly. There are still a number of candidates who do not appreciate the distinction between a barcode and a product code or understand the process of card authorisation. Very few candidates gave a good answer to the outputs or the processes. Often candidates gave answers which were in the wrong section, eg a process in the output section.

- 6 The whole of question 6 was often misread, as candidates did not always understand 'check-in and monitoring systems', or answer relating to members and not non-members. Strengths were particularly hard to identify, but most candidates gained something in b. The majority of candidates failed to relate their answers to an improved IT system, and talked about extra staff, or an extra terminal, or CCTV to watch where people went in the Centre. Most candidates who gained marks in this section identified a card entry system, however they were then unable to explain the benefit this would bring or any specific problems associated with the improvement.

Centres are reminded that weaknesses are clearly defined in the case study and that candidates will not gain marks for generic weaknesses such as lack of backup.

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- 7 Most candidates identified one of the 2 items in part a, but often gave answers such as name and address, because they had not read the question, or price. Part b was generally poorly answered with few candidates identify how a system produces an invoice, often giving the content of an invoice, rather than the way the information is processed. Too often they described how they might have used a template to create an invoice in Unit 1.
- 8 A common error in this question was to make general statements about email as a technology such as it is quicker, cheaper, more efficient rather than describe how it could be used. Few candidates gained the second mark for a use or a problem because they did not include sufficient detail.

Although most candidates must be using email extensively very few of them seem to find any problems beyond being unable to get onto the internet. Good answers described the problems associated with people failing to check their emails regularly enough but again only a few described the possible consequences of this. Better candidates recognised that spam filters often simply delete unsolicited emails before they are read, reducing the impact of this method of advertising. Although many gained a mark for mentioning viruses, few recognised that these are carried by attachments and unleashed when the attachment is opened, to gain the second mark.

- 9 Some candidates are confused between robots and dummies. There were several answers about car crash testing. There were also candidates who failed to read the question and talked about manufacturing components rather than cars. In the main, however, candidates had seen the Citroen Picasso advert and were able to identify that robots paint cars. Beyond this many answers were too vague to gain marks. Many candidates seem to think that using robots means that no people are needed any more and that robots work quicker than people. A significant number of candidates were, however able to correctly describe advantages and disadvantages although few in enough to detail to gain more than one mark for each. In part c a number of candidates mentioned redundant workers and therefore did not get the mark.

## G048 Working to a Brief

### 1. General Comments:

In this second session of this qualification, Centre Administration was generally good, although, as with the January session, there were some examples of Centres failing to complete the candidate front sheets correctly. It is the Centre's responsibility to check that the marks entered on the paper work sent to the Exam Board agree with the marks shown on the candidate front sheet. Where there were errors, this significantly impairs the speed of the moderation process and, in extreme cases, may delay the awarding of grades to individual centres. Additionally each Centre must complete a Centre Authentication form.

Overall, candidate performance in response to the set briefs, was generally in line with the work produced in January. However, there were a few instances of candidates completing work other than that set by the brief. Where a candidate fails to complete a brief set by the Examination Board, the marks available for the work are significantly reduced and, therefore, it is in both Candidate's and Centre's interest to ensure that candidates only complete those briefs set by the Exam Board.

Centres are reminded that there is no requirement for candidates to provide any printout of materials produced in direct response to the brief. This unit focuses on the planning and development of the product and any associated support materials, rather than on the final product.

### 2. Comments on Individual Assessment Objectives:

- a For this task, candidates are expected to review current working practice within their chosen area of focus. In some cases, the reviews of current working practice were in great detail and allowed candidates to clearly state the areas for consideration. However, there were also some cases where this report was extremely superficial and could easily have been improved.

Where a candidate fails to complete a brief set by the board, no marks are available for this task.

Centre assessment of this task was generally accurate.

- bi As with the January session, candidates must use suitably complex planning techniques. To be awarded marks within MB3, candidates must use two such techniques. If a candidate uses one only, we would usually expect to see marks in MB2 awarded. However, if the candidate uses the technique, but with little to no accuracy, a mark in MB1 was considered more appropriate.

Centres are reminded that planning must be completed at the start of the project. Where there is any evidence that candidates have completed their planning documents at the end of the process, all relevant marks will be removed.

- bii MB3 and MB2 for this task are differentiated by detail. For MB3, candidates need to present a plan which works with detailed tasks, rather than allocating

huge periods of time to one major task.

The usual error here was for candidates to work with major tasks – such as “produce web site” and then to allocate a large period of time to the task. Candidates need to show the sub tasks which make up this major task and allocate quite small chunks of time accordingly.

There was often a large discrepancy between those marks awarded by the Centre and those by moderation. Candidates who produce a wide range of detailed tasks that cover all aspects of the project should be awarded full or nearly full, marks. However, if the candidate has provided a handful of tasks, however accurately applied, then marks from MB1 are more appropriate.

- ci Candidates need to show that they have developed their skills. This may be shown in the diary, with an explicit column or entry aimed at this one issue, or by a self analysis task completed before and after the project. This may be considered the first part of the diary task.

In the best cases, candidates commented directly on this aspect of their development and identified whether this was an extension to what they already knew or a wholly new skill.

In order to achieve MB3, candidates need to show initiative in their development. This could be that candidates show that they have used other sources of information and learning which they have identified, or that they have used resources which they themselves identified as being of use.

Centre marking was generally accurate, although there were some examples of candidates being awarded MB3 marks when there was little to no evidence of individual thought and initiative shown by candidates.

- cii There were some very good examples of candidates using a good range of skills during the life of the project and these were usually awarded accordingly. However, the majority of candidates failed to evidence this task well. For candidates to be awarded marks in MB3, there must be clear evidence of the use of a range of skills, with a clear indication that the candidate is fully aware that their work affects the both other team members, if they exist, and the end user.

In many cases, Centres awarded marks for this task which did not reflect the quality of work submitted.

- ciii As with task cii, a few candidates were able to show that they were able to deal with both day-to-day and more long term complex issues. However, in many cases, the diary entries were extremely vague and would benefit from more explicit discussion of these issues.

Unfortunately, this is an area that needs addressing by many Centres. This task carries a lot of marks and, where Centres over award, there is a strong possibility for moderation to identify the need for scaling. The differentiation between the Mark Bands is clear and well explained.

- d As with January, there was still a tendency for Centres to award production of the main task as production of supporting materials. Supporting materials support the task and are not the subject of the task.

Similarly, many candidates have been awarded marks above MB1, despite producing no evidence that they have developed or extended their ICT skills. This development may be evidenced via the diary or a separate report.



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e, f and g These three reports required candidates to review their practice and make suggestions how their future performance may be enhanced. Basically, candidates are showing here that they have learnt about the different aspects of managing a task and could apply the elsewhere. To be awarded marks above MB1, these reports need to be well written and in some depth.

The best examples of work were those where each report was produced separately. Where candidates produce one report that attempts to deal with each of the three themes in one go, these were often lacking in detail and missed key points. To be awarded marks from MB3 for reports e and f, there must be a clear list of positive and negative comments about each theme. These must be supported by clear discussion of how the negative aspects of the work would be addressed were the task to be undertaken again.

In some cases, there was a degree of repetition between report e and f. The focus of Report e is on the quality of the planning, whilst the focus of report f is on the implementation. Implementation should be seen as a separate issue to planning. Candidates who discuss timing and planning issues as part of their discussion of implementation must expect to lose marks.

The final report concentrates on the overall quality of the work completed. This must be based on the requirements as laid out by the brief and, if one exists, the customer. Where candidates had produced separate report for this task, this report was generally well marked.

## **G054 Software Development**

### **1 General Comments**

This was the second time this A2 unit had been examined and it was pleasing to note that many centres had actioned the issues raised in the report on the January examination. 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 Canal Capers. However, once again, the performance of the candidates on section B of the paper was disappointing

The majority of candidates had attempted all of the questions producing good quality pre-release material to help them in the exam. Centres are reminded that the work for Task 1 must only cover the topics listed in the instructions to candidates. Some candidates had not fully prepared the pre-release tasks failing to submit at least 1 of the tasks. This strategy disadvantages 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 January 2007 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 students 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.

## 2 Comments on Individual Questions

**Task 2** *The task required candidates to produce L0 (context diagram) and L1 DFDs with the start point being given as the boat yard being notified of the booking and the end point being when the narrow boat is returned to the fleet. There were many instances of the start and end points shown in the DFD being different.*

The main failing on this task was to produce diagrams for the whole system instead of concentrating on the current system in place at the boat yard. As a result the L0 diagrams scored few marks and the L1 DFDs did not have enough detail of the required processes. Some candidates did not understand the difference between data flows and processes and labelled arrows with processes. Most candidates tried to include data stores reasonably successfully. Few candidates correctly identified the customer and the administrative staff in the office as the external entities.

Many of the DFD's produced used symbols consistently. It is appreciated that there are many different sets of symbols that can be used to develop DFD's. It is irrelevant which set of symbols is used as long as they are used consistently. It is important that DFD's are produced showing a logical order – as detailed in the case study – and that processes are linked to the appropriate data stores. Some DFD's produced by candidates failed to follow the processes and data stores detailed in the case study with some centres developing a DFD that bore very little resemblance to the activities that occurred at the boat yard of Canal Capers.

Some of the DFD's produced by candidates were simply a set of isolated processes and data stores with no links between them. A DFD should show the logical flow of data from the start of the given process to the end.

Too many candidates failed to achieve any marks for AO4, as they had made no attempt to evaluate the methods used to produce the DFD.

**Task 3** This task required candidates to produce an Entity Relationship Diagram (ERD) for the proposed system. Many centres produced data dictionaries instead of an ERD. Data dictionaries were not required by the task and so were not considered by examiners during the marking of this task.

Some centres submitted ERD's completed in database software. This strategy limited the accessibility to all the marks available for this task. If candidates had submitted an ERD completed using database software then only the marks allocated to the clear identification of the entities were awarded. As database software will provide the relationships between the entities automatically then these marks were not awarded.

**Task 4** A surprising number of candidates were very careless in producing an accurate flowchart. Despite being given the conditions in the case study many candidates failed to use these correctly in their flowcharts. Candidates also failed to label the flows from the decision symbols.

Many candidates failed to add all the necessary arrows to produce a complete flow. A very common mistake was to link all conditions directly with the final terminator rather than looping them back before the next condition.

## Section A

- 1 Many candidates answered this question well. There were, however, still some instances of generalised purposes such as 'to improve the business'. Some candidates appeared to be confused about the difference between the purpose and the functions of the new system.
- 2 Many candidates did not focus on the functional requirements of the proposed system. Some candidates used the report given in the question as one of their answers. A common error was the omission of the calculation **and** printing of invoices.
- 3 The focus of part (a) of this question was the process constraint of budget with candidates being asked to describe these. Many candidates simply listed all the different process constraints that can be defined by a client, failing to relate their answers to Canal Capers.  
  
Part (b) of the question asked candidates to identify the other process constraint that had been identified by Canal Capers. Many candidates failed to identify the process constraint of time which then limited their accessibility to the marks allocated for part (c) of this question.
- 4 The majority of candidates gained marks on this question although few linked the double-booking to the poor communication between the two sites of Canal Capers. Some candidates, however, failed to focus on the problems caused to the customers of Canal Capers and provided answers that speculated about the possible impact on the customers.  
  
There were some instances of candidates 'inventing' problems such as the disorganised method of storing records at the boat yard. This problem does not have an impact on the customers.
- 5 The user requirements of the proposed system at Canal Capers were clearly given in the case study. These are concerned with what the user would like the system to do. There were many generalised answers such as 'Internet Access' rather than the specific answer of improvement of communication between the 2 sites through the use of email.  
  
Once again there were instances of candidates inventing user requirements that had not been defined in the case study. These answers gained no marks. Some candidates provided answers relating to the requirement for increased security. As this was given in the question no marks were awarded for these answers.
- 6 Many candidates only accessed the marks allocated for the method of investigation that could be used. The method chosen had to be suitable in the context of Canal Capers. Many candidates failed to provide reasons for their choice of investigation method providing a description of the method instead.
- 7 This question assessed the candidates' quality of written communication.  
  
There seemed to be a good general understanding about security. Most understood that they had to do more than list the possible security measures and there was some attempt to link their answers to the case study. Few however developed an argument in enough depth to score the highest mark band.

Good answers often talked about, for example, a range of access levels, giving examples of which groups of people within Canal Capers would have access to which files. The better answers would then go on to explain why those access rights were needed by each group and to differentiate between different types of access such as Read/Write for some files and Read Only for others.

A minority of candidates failed to use examples from Canal Capers as to how an increased level of security could be achieved. This strategy limited candidates to the lowest mark band.

- 8 The focus of this question was on the devices/methods that could be used to perform a given task. Many candidates gave answers relating to software and, in many cases, provided the brand names.

To achieve the marks allocated to each section of this question candidates had to identify the device or method before they gained any marks for their justifications.

Task 1 of the pre-release work clearly specified that a hardware specification should be included. Those candidates who had prepared their work for Task 1 covering all the specified requirements scored marks on this question. Centres should ensure that all specified requirements given in Task 1 are adequately covered.

- 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 Very few candidates scored marks on this question. A list of the documentation that should be passed to the end-user is given in the unit specification. Candidates should be able to identify why each piece of documentation needs to be given to the end-user and how each could be used at a future time in the life of the system.

- 10 Many candidates were able to gain marks on this question.

- 11 This question focussed on a fundamental development tool that can be used within the area of software development.

Most candidates were able to gain some of the marks allocated for part (a) of this question. A common error was to identify the journey time as being equal to or greater than 3 hours. Many candidates were unable to identify the 4 possible rules required in the decision table.

Many candidates were able to provide reasonable descriptions of a decision table but failed to access the marks for evaluating the use of decision tables as a tool that can be used in the systems life cycle.

## **G055 Networking Solutions**

### **Comments on Individual Questions**

#### **Task 1**

Candidates had produced notes for reference in the exam. These notes would be more effective if they were more relative to the case study than simply notes defining terms or giving general advantages and disadvantages.

#### **Task 2**

Candidates lost marks if their network diagram was not a ring, either a physical star using a MAU or a physical ring. If a hub or switch was situated at the centre of the network the diagram gained no marks.

Most candidates were able to identify UTP or STP cable with RJ-45 connectors and many were able to justify their choice according to the mark scheme. Identification of a connecting device was dependent upon their choice of diagram but many, who hadn't drawn a ring, were able to gain these marks by identifying the need for network interface cards.

Most candidates gained some or all marks for identifying hardware and software.

A significant number of candidates did not submit an evaluation of the methods they had used and a number evaluated their network design rather than their methods.

#### **Task 3**

On the whole, candidates gained a much higher percentage of the marks for this task than they did for Task 2. Most were able to identify a connection type, the equipment required and some of the costs. Marks were most often lost for stating the services provided by a particular ISP rather than the justifying the choice of a particular connection type.

### **Section A Questions**

- 1 Candidates were able to identify that management staff would be required but many answers related to the installation of the network rather than the maintenance and supervision.
- 2 Candidates were able to describe disadvantages such as the cost of installation and the loss of security most often but often described loss of speed without referring to individuals having to wait to access their own work from the server.
- 3 Some candidates described the advantages of networking rather than of client-server networks.
- 4
  - a Candidates often gave advantages or disadvantages rather than identifying things that physically or logically describe a bus network.
  - b A number of candidates drew a network with a server at the centre and gained no marks. A diagram which was not labelled or drawn to show nodes and a hub or switch gained no marks.
  - c Candidates often gave advantages or disadvantages rather than identifying things that physically or logically describe a star network.
  - d Candidates were generally able to give advantages and disadvantages and so make a recommendation. Typically, candidates gained over half the available

- marks for this part.
- 5 a A significant number of candidates were not able to identify a correct connector, the most popular answer being RJ-45.
- b Many candidates were able to identify that fibre optic cable uses light to transmit data. This question was well answered by around half candidates.
- c Most candidates identified why the connector and cable were suitable for Rolling Rocks.
- 6 a Candidates tended to gain one rather than two marks for each section,  
b sometimes describing the hardware itself rather than its function (e.g. a gateway  
c is a computer connected to two networks).  
d
- 7 a Candidates could often answer (a) quite well from the notes they had prepared  
b but were less likely to be able to explain why NetBEUI might be chosen.  
Some candidates described protocols in general.
- 8 a This part was answered well.
- b Candidates sometimes used the answer space to describe one method in great detail rather than three separate methods.
- c Answers often lacked depth. Candidates often identified that anti-virus software should be installed without describing the need to install it on every machine and keep it up to date.
- 9 A significant number of candidates described ways that the company could use the Internet to advertise rather than describing the benefits of using it for advertising.

### **Section B Questions**

- 10 a Answers were often repeats of the question or they referred to communication with head office rather than the ability to access the network directly. The advantages of using a VPN were confused with the advantages of having email or telephone communication with head office.
- b Many candidates identified security risks as a disadvantage but failed to expand on this.
- c Answers often indicated that candidates may not know what a VPN is.
- 11 This question was generally well answered.
- 12 Candidates often described characteristics of a ring topology rather than of Token Ring technology giving answers such as "each node is connected to exactly two other nodes"
- 13 Candidates who knew about IP headers generally gave good answers, others confused IP header with IP address.
- 14 This question was generally answered fairly well. A common mistake was to describe what users might do rather than what the company might do.
- 15 This question was commonly misinterpreted and candidates often described the content of the logs rather than how they might be filed for easy retrieval.

**Applied GCE (H115/315/515/715)  
June 2007 Assessment Series**

Coursework Unit Threshold Marks

Unit		Maximum Mark	a	b	c	d	e	u
<b>G040</b>	Raw	50	45	40	35	30	25	0
	UMS	100	80	70	60	50	40	0
<b>G042</b>	Raw	50	44	39	34	29	25	0
	UMS	100	80	70	60	50	40	0
<b>G043</b>	Raw	50	44	39	34	29	24	0
	UMS	100	80	70	60	50	40	0
<b>G044</b>	Raw	50	43	38	33	28	24	0
	UMS	100	80	70	60	50	40	0
<b>G045</b>	Raw	50	43	38	33	28	24	0
	UMS	100	80	70	60	50	40	0
<b>G046</b>	Raw	50	43	38	33	28	24	0
	UMS	100	80	70	60	50	40	0
<b>G047</b>	Raw	50	45	38	33	28	25	0
	UMS	100	80	70	60	50	40	0
<b>G049</b>	Raw	50	45	40	35	30	25	0
	UMS	100	80	70	60	50	40	0
<b>G050</b>	Raw	50	45	40	35	30	25	0
	UMS	100	80	70	60	50	40	0
<b>G051</b>	Raw	50	45	40	35	30	25	0
	UMS	100	80	70	60	50	40	0
<b>G052</b>	Raw	50	45	40	35	30	25	0
	UMS	100	80	70	60	50	40	0
<b>G053</b>	Raw	50	45	40	35	30	25	0
	UMS	100	80	70	60	50	40	0
<b>G056</b>	Raw	50	45	40	35	30	25	0
	UMS	100	80	70	60	50	40	0
<b>G057</b>	Raw	50	45	40	35	30	25	0
	UMS	100	80	70	60	50	40	0
<b>G058</b>	Raw	50	45	40	35	30	25	0
	UMS	100	80	70	60	50	40	0
<b>G059</b>	Raw	50	45	40	35	30	25	0
	UMS	100	80	70	60	50	40	0



### Examined Unit Threshold Marks

Unit		Maximum Mark	a	b	c	d	e	u
<b>G041</b>	Raw	100	71	63	55	48	41	0
	UMS	100	80	70	60	50	40	0
<b>G048</b>	Raw	100	83	73	63	53	44	0
	UMS	100	80	70	60	50	40	0
<b>G054</b>	Raw	100	68	60	52	45	38	0
	UMS	100	80	70	60	50	40	0
<b>G055</b>	Raw	100	71	63	55	47	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
<b>UMS (max 300)</b>	240	210	180	150	120

Advanced Subsidiary GCE (Double Award) (H315):

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

Advanced GCE (H515):

Overall Grade	A	B	C	D	E
<b>UMS (max 600)</b>	480	450	420	390	360

Advanced Subsidiary GCE (Double Award) (H315):

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

### Cumulative Percentage in Grade

#### Advanced Subsidiary GCE (H115)

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>U</b>
2.9	13.6	34.1	59.9	80.2	100.0
There were 9455 candidates aggregating in June 2007.					

#### Advanced Subsidiary GCE (Double Award) (H315)

<b>AA</b>	<b>AB</b>	<b>BB</b>	<b>BC</b>	<b>CC</b>	<b>CD</b>	<b>DD</b>	<b>DE</b>	<b>EE</b>	<b>U</b>
1.7	5.0	9.6	18.0	27.6	37.3	51.2	65.8	79.3	100.0
There were 1103 candidates aggregating in June 2007.									

#### Advanced GCE (H515)

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>U</b>
5.4	22.3	49.7	74.6	92.1	100.0
There were 6054 candidates aggregating in June 2007.					

#### Advanced GCE (Double Award) (H715)

<b>AA</b>	<b>AB</b>	<b>BB</b>	<b>BC</b>	<b>CC</b>	<b>CD</b>	<b>DD</b>	<b>DE</b>	<b>EE</b>	<b>U</b>
1.8	4.5	11.7	21.4	32.7	46.7	62.0	77.3	90.8	100.0
There were 1145 candidates aggregating in June 2007.									

For a description of how UMS marks are calculated see;  
[http://www.ocr.org.uk/exam\\_system/understand\\_ums.html](http://www.ocr.org.uk/exam_system/understand_ums.html)

Statistics are correct at the time of publication.

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