

Applied ICT

Advanced GCE AS H515

Advanced Subsidiary GCE AS H115/H315

Report on the Units

January 2007

H115/H315/MS/R/07J

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Advanced Subsidiary GCE ICT (Double Award)(H315)

Advanced Subsidiary GCE ICT (H115)

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Chief Examiner's Report

This session was the first when A2 units were available, as well as AS. There were significant entries for all the A2 external units, including G048, and entries for all internally assessed units, although these were very small for some double award units. At AS level, entries for G041 were significantly higher than last January. There were entries for all internally assessed units and it was clear that some Centres had delayed entering some AS units until this session.

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.

Performance in G041 was very similar to last January, with few candidates accessing the top 20% of the mark range. This was partly due to poor responses in section B of the paper. The same was true of both G054 and G055. 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.

A few candidates attempted to cross-reference answers or referred the examiner to their notes for further detail. Only answers written on the question paper or on supplementary sheets will be marked. 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

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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 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 should 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

General Comments

This was the first session where some Centres had been accredited, so the amount of work actually seen by moderators was somewhat reduced. As in previous sessions, of the work looked at, more marks were scaled than would be hoped for, especially for some units. However, in a few cases this was because Centres had been too harsh in their assessment, rather than too lenient.

Many Centres completed the unit recording sheets well, especially where they had attended a training course. 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.

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.

As before, there were a number of instances where the task marks had been added incorrectly, or no total was shown on the unit recording sheet. This led to incorrect marks being recorded on the MS1 mark sheet and delayed the moderation process while these were corrected.

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. The January session is very short and 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.

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.

1. 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, again, 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. 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. 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. 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.

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 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. 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. Again, these 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.

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.

Task bv

This task 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. 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

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. 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. Candidates should be encouraged to use OR or NOT (-) as well as AND (+). 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. There was also evidence of poor use of advanced search options, such as only entering one word in the 'With all the words' box. 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. 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. 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.

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. Reports produced to achieve mark band 3 must be fit for purpose.

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.

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. To meet mark band 3, it must incorporate all six of the types of information listed in section 3.2.6 of the unit specification. As in G040, the term presentation should be taken in its widest sense. Where candidates have not addressed an individual investigation, it becomes difficult for them to produce the evidence required for this task. 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.

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. Again, 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

Centres are again reminded that there is no requirement to assemble hardware for this unit. Whilst Centres may wish to continue to include this as part of their teaching, evidence is not required in the portfolio. Where photographic evidence of hardware assembly had been included it was often at the expense of the software installation evidence required. Photographic and/or screen print evidence backed up by a detailed signed and dated observation record would improve the evidence for these practical tasks.

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.

The designs should form part of the system specification. This should be a stand-alone document that covers all of the items listed in task b, ie hardware, software and configuration. Whilst the specification should be based on the user requirements, these need to be identified and described before the specification is decided upon.

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.

Task f was almost universally misunderstood. 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 their specifications and the methods they had used. As with other units, for mark band 3 this should be ongoing.

G044 – Problem solving using ICT

There were only a small number of entries for this unit. 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. 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.

G045 – Software development – design

Very few candidates submitted work for this unit so it is difficult to generalise. The following comments are based on previous submissions and provided to assist Centres.

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.

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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.

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. 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. 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.

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.

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

Again, although numbers were smaller than in the summer, the work submitted for this unit was mostly appropriate and had been accurately assessed. 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. 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. As in other units, insufficient account was taken of poor spelling, punctuation and grammar. 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.

G047 – Introduction to programming

Candidates who submitted work for this unit had usually been well taught and produced suitable evidence. A variety of languages were used including various versions of visual basic, Java, Pascal and C. Suitable programs had been created by candidates, most of which gave access to all three mark bands in all three parts of task a. However, clearer evidence of the use of modularity and file handling is needed for mark band 3. In particular, when using VB, candidates would be expected to use and call procedures, rather than simply using the subroutines provided by the language. Care is needed that the created programs are not too simple, limiting the candidates' opportunity to reach the higher mark bands. Candidates must include annotated program listings as well as evidence of forms etc to gain marks in tasks ai and aii. 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.

Suitable programs were also provided for task b, 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.

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.

G041 – How organisations use ICT

General Comments

There was a good range of marks on this paper with some candidates scoring well. However, fewer scored very high marks this session than in last summer's examination. The performance was more on a par with that last January.

Most candidates attempted all of the questions and had produced good quality pre-release material to help them in the exam. There were a few instances where the wrong tasks had been attempted. In some cases these were tasks 2 and 3 for June 2007, in others where the candidate was re-sitting, tasks relating to last year's case study were included. 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.

Candidates generally had a good understanding of the work covered, but were unable to add details or break down processes. Candidates who had prepared well, performed well in the exam. Most pre-prepared work was word processed, though tasks 2 and 3 were not always easy to find. Whilst hand-written notes for Task 1 and hand-drawn diagrams for Task 2 are acceptable – indeed, candidates may benefit from hand-drawing the information flow diagram for task 2, or at least hand-labelling the information flows, as marks were lost due to candidates' inability to manipulate text boxes – Task 3 requires a word-processed report.

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.

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 are also reminded that marks will only be awarded for answers written on the question paper. There were a few instances where candidates had tried to cross-reference to Task 1 in their pre-release tasks or had made reference to it.

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.

Centres are reminded that Task 1 should be read carefully and candidates should only include responses to the points stated. The inclusion of notes on aspects that may have been asked for in the past, such as legislation, is not allowed. Also, candidates must not include class/revision notes unrelated to the case study with their work. Such material should be removed before the work is given back to candidates in the examination room.

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.

Task 2

Most candidates produced a suitable diagram in response to this task and many scored well. There were a few instances of inappropriate diagrams, such as data flow diagrams or flow charts, but these appeared less frequently than previously.

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 Administration Assistant creates an advertisement and faxes it to the local newspaper', rather than identifying the information and method, i.e. 'advertisement by fax'.

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

Although candidates were able to state the principles of the Data Protection Act, few were able to apply these successfully to the organisation in the case study. It is not sufficient to simply rewrite these principles with the odd reference to KFSC. Candidates needed to apply the principles of the Act to the information and processes within the organisation, such as recognising that the members are data subjects, the need for the application form to include reference to the DPA and possibly a box for members to tick relating to direct marketing, etc. This was done best when candidates had summarised each principle and then given an example of how it would affect/apply to KFSC.

The use of spell checkers and grammar checkers meant that most of the quality of written communication (QWC) marks were out of the lowest mark band but there was little evidence that candidates had proofread their work to remove errors that the word processing package did not identify.

While most candidates made some comment on the methods used to complete this task, many made no attempt at evaluation other than to list the sources they used. Where an evaluation had been attempted, this was often little more than a comment on what they did,

rather than any consideration of what went well or what went badly. Very few gave both positive and negative comments on the methods used.

- 1 This was generally well answered. Where marks were lost, it was mostly because candidates had given a subset of the function, such as recruitment rather than human resources, or where they were too vague in their descriptions of the tasks carried out.
- 2 This question was well answered by most candidates. Where marks were lost it was due to lack of detail in the answers.
- 3 Providing candidates identified a correct supplier, they scored well. Marks were lost if both cleaning and maintenance companies were given as the supplier, or if the staff of these organisations were given as the supplier. A few weaker candidates suggested other suppliers, such as the bank or suppliers to the shop, which gained no marks.
- 4 Part a was poorly answered. Many candidates failed to identify 'hours worked' as the data that was input and could not then be credited for the method used to obtain and input it. Often, the answer for part b was given here – sometimes being repeated and gaining marks in part b, but not always. Where candidates did identify the data, they usually went on to gain good marks for the method, although there was sometimes a lack of precision in their answers.

Part b was generally answered well with most candidates understanding the process of calculating payroll. Again, marks were lost due to a lack of precision, for example not indicating that it was the hours worked each week that were looked up initially. A few candidates could not differentiate between the processing carried out by individuals and that carried out by the system.

Part c was poorly answered with very few candidates gaining all four marks. Many thought that HM Revenue and Customs are two separate organisations, although they were given one mark for the two answers. Too often, candidates had simply written Tax or National Insurance as the organisation or given organisations that had nothing to do with payroll. Where candidates had identified correct organisations, the information given was often too vague to gain marks.

- 5 This question was also answered poorly. Most candidates gained most of their marks from the hardware section. Most candidates assumed that software meant word-processing and databases. There seemed to be a lack of understanding that most business systems use specially written software. More worryingly, many seemed content to assume that there must be Microsoft Office software on the PCs, especially as they are told in the rubric that marks will not be awarded for brand names.

Candidates seemed to have little understanding of what constitutes input, outputs and processing. In some cases, the hardware used was given as input or output, rather than the data that was being input or output; in others, there was insufficient detail or confusion between what was input and what was the output obtained.

Processing was very poorly answered with many providing answers relating to what the receptionist did, rather than what the system did. Alternatively, answers described what was input and output without considering how the output was produced.

- 6 Despite breaking the question down compared to similar questions on previous papers to try to elicit appropriate answers, this question was poorly answered by many. Many candidates answered the question in general terms that related to the running of the shop and did not relate their answers to the ICT systems involved.

In part a, answers rarely provided enough detail for more than one mark and, in most cases were not relevant and gained no marks at all.

The case study is written with, hopefully, glaring weaknesses in the systems for candidates to identify for part b. They should not assume, for example, that because backup is not mentioned it does not take place. Some candidates had identified at least one of these weaknesses, although they often could not expand on their answer for the second mark. It was rare for candidates to gain all four marks for this part of the question.

Part c required a suggested improvement along with a benefit and possible problem that this would arise. As the benefit and problem are dependant on the improvement suggested, where candidates failed to suggest a suitable improvement, no marks could be awarded for this part of the question. Often when a suitable improvement was suggested, this was not sufficiently expanded for a second mark and the benefit and problem were too vague to gain marks.

- 7 Most candidates were able to identify three items of information for part a. Where marks were lost it was through repeating similar information on the same marking point, giving incorrect information such as 'age', or giving payroll information.

On the other hand, many candidates did not understand what training records are, giving very vague answers for part b. Some seemed to think that training records are kept by the individual so that they can use them when applying for a new job, while others thought that they were records used to train human resources staff before they are allowed to use the real personnel records. Where candidates were able to state a use that could be made of training records, many did not really expand on these points to gain second marks.

- 8 Although many candidates gained full marks in part a, a worrying number thought that the Internet is synonymous with the world wide web and that an intranet is an internal website. Some candidates' answers suggested some understanding of the difference between the two but were too vaguely expressed to gain marks.

In part b, candidates gave either a point or an explanation, but rarely both that matched. Alternatively, they had listed a number of uses, rather than explaining one.

In part c, few seemed to understand that it is the interface that makes it an intranet and were unable to differentiate it sufficiently from a LAN with an area that can be accessed by anyone who logs in. Where candidates did gain marks they gained one rather than two.

- 9 Marks for this question were very dependent on candidates recognising what it was about. Where they gave the answer that people can work from home for part a, they usually went on to gain good marks in parts b and c, although two similar responses were often given in part c, so full marks were rare. However, if they missed the point in part a, the answers in parts b and c were usually also incorrect. Many answers to part c talked about health issues rather than social aspects and many candidates failed to notice that the question related to employees and talked about problems of unemployment.

G048 – Working to a Brief

General Comments

This was the first session for which candidates were entered for this unit and it was pleasing to see so many students producing some high quality work in response to the brief set. In all cases, candidates interpreted the briefs accurately and the work submitted was suitably targeted to the needs of the briefs set.

Centre Administration was generally good, although 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. Similarly, each centre must complete a Centre Authentication form. Where these two errors occur, this significantly impairs the speed of the moderation process and, in extreme cases, may delay the awarding of grades to individual centres. It is worth stressing that this unit is marked out of 100, not 50 as other units for this qualification are.

Comments on Individual Assessment Objectives

- a** For this task, candidates are expected to review current working practice within their chosen area of focus. In many cases, the reviews of current working practice were in great detail and allowed candidates to clearly state the areas for consideration. In the best cases, the areas for consideration were presented as a developed list. However, some candidates mentioned the issues in passing. Whilst this was not as clear, this was acceptable.

- bi** Candidates must use suitably complex planning techniques. To be awarded marks within MB3, candidates must use two suitable 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.

- 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 website” 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.

- 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.
This task also requires that a candidate shows initiative in their identification of training needs and skills gaps. Having a lesson dedicated to the topic, unless it has been set up at the request of the candidate, does not show initiative, but rather, the result of timetabling and planning on the part of the subject leader. Candidates need to show that they have used other sources of information and learning which they have identified.

Report on the Units taken in January 2007

- 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 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.

- d** Centres consistently awarded production of the main task as production of supporting materials. Supporting materials support the task and are not the subject of the task.

Candidates need to create relevant supporting materials before any marks may be awarded. For marks other than MB1, candidates must show how producing the supporting materials has required them to further develop their skills.

- e, f, 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 them elsewhere.

In some cases, these three tasks were dealt with extremely well. This tended to be where each of the reports was dealt with separately. Where candidates wrote one report, typically, their suggestions for future improvements tended to be very short indeed.

Overall, candidates need to suggest more than a few improvements to be awarded marks from MB3 for these tasks.

Principal Moderator Report – A2

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 processing 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 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.

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 they 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 meets 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 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, they showed 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. This will be an evaluation, not a description, of the candidate's role in the development of the solution.

G052 - Artwork and Imaging

Insufficient candidates entered in this moderation series in order to comment.

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.

G056 - Program Design, Production and Testing

Insufficient candidates entered in this moderation series in order to comment.

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 3rd normal form (3NF). Some candidates failed to provide clear details of the entities, attributes, keys, relationships and internally generated or processed data. It should be noted that the use of 'autonumber' primary keys in all entities is unlikely to be an appropriate solution to the database problem.

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 include 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

Insufficient candidates entered in this moderation series in order to comment.

G059 - ICT Solutions for People with Individual Needs

Insufficient candidates entered in this moderation series in order to comment.

G054 - Software Development

General Comments

This was the first time this A2 unit had been examined. There was a wide range of marks on this paper with many candidates scoring well on the pre-release tasks. However, the performance of the candidates on section B of the paper was disappointing. Centres are reminded that all answers given to questions in Section A must be applied to the case study; in this case Canal Capers.

The majority of candidates had attempted all of the questions and had produced good quality pre-release material to help them in the exam. However, some candidates had not fully prepared the pre-release tasks with some centres 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 sample pre-release material had been used. This disadvantaged candidates who, not only gained no marks in Tasks 2, 3 and 4, but also had to answer questions on a case study they were unfamiliar with. Centres are reminded that, although the case study and Task 1 are the same for both 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.

Comments on Individual Questions

Task 2

The task required candidates to produce a L1 DFD with the start point being given as the customer booking a narrow boat and the end point being when the booking details are passed to the Boat Yard. There were several instances of the start and end points shown in the DFD being different.

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. Most candidates correctly identified the customer as the external entity.

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 in 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

The task required candidates to produce data dictionaries for the 4 given entities. Many centres produced ERD's to show the relationships between these entities. An ERD was not required by the task and so was not considered by examiners during the marking of this task. By using this strategy candidates were unable to access 4 of the 12 marks allocated to this task. The related entities and cardinality should be included in the data dictionary.

At this level auto number should not be used as the data type for a primary key. Those candidates who defined primary and foreign keys data type as auto number lost marks.

It was obvious, in some cases that the candidates did not have a full understanding of the requirements of Canal Capers and the data that needed to be stored in each of the entities and related tables. This was particularly evident in the defined entity Boat Records where the attribute 'available' was defined as 'is the boat available for hire'. There were many different interpretations of attributes and data types – centres are reminded that the information needed by the candidates can be found in the case study and assumptions should not be made.

Task 4

Candidates, in their work for this task, used a wide variety of Structured English constructs. The construct used was irrelevant – what was important was that all identified rules given in the decision table were covered. There were however, some instances of candidates incorrectly identifying the mathematical operators defined in the decision table.

Section A

- 1 Many candidates answered this question well. There were, however, 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 requirements of the proposed system. Some candidates gave 3 different reports that could be produced or 3 different tables that could be stored in the database. A common error was the omission of the calculation **and** printing of invoices.

- 3 The process constraint of time was given in the question with candidates being asked to identify and explain 2 others. A significant number of candidates gave time as one of their answers. The examples given by the candidates should have been those given in the case study.
- 4 Those candidates who had simply used the information given in the case study to identify the problems scored good marks on this question. A common error was not being able to clearly identify at which site, the boat yard or Head office, the problem was occurring at. There were some instances of candidates 'inventing' problems such as the loss of sensitive data or the lack of a website.
- 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.

- 6 This question was poorly answered as, once again; candidates failed to read the question correctly and gave questionnaires as their method. If candidates identified a correct method of investigation then many simply gave general reasons why that method should be used.
- 7 This question assessed the candidates' quality of written communication. Many candidates were able to give descriptions of the 4-implementation methods that are used but there was very little evidence of any discussion or application to Canal Capers. As a minimum, candidates should, for the keyword discuss, be able to give the advantages and disadvantages of, in this case, implementation methods.

There was some general confusion between the pilot and phased methods of implementation. There were a large number of candidates who totally missed the focus of the question giving answers that related to the systems life cycle.

Many candidates were able to identify an appropriate method to be used in Canal Capers (Q7b) yet were unable to justify their choice.

- 8 This question required candidates to explain, giving reasons for their choice of method, training strategies that could be used with the 3 main groups of end-users within Canal Capers.

To achieve the marks allocated to this question candidates had to explain the most suitable training strategy i.e. one-to-one, on-site etc before they gained any marks for their reasons.

Task 1 of the pre-release work clearly specified that training strategies should be included. Those candidates who had prepared their work for Task 1 covering all the specified requirements scored good 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 components of the different parts of a physical design specification is given in the unit specification.
- 10 Despite candidates having developed a data dictionary for Task 3 of the pre-release work, many were unable to correctly identify two components of a data dictionary. The majority of candidates also poorly answered part a of this question - the explanation of the function of a data dictionary.
- 11 Despite customised and bespoke software being part of the unit specification many candidates appeared to be confused about the difference between these types of software approaches that can be used. Many candidates felt that customised software was the same as bespoke software. As such, very few candidates scored over 3 marks for this question. There were many instances of candidates using cheaper, quicker easier in their answers. These are not, at this level, acceptable answers. If candidates feel that these terms are applicable then they must justify their answers to be awarded marks.

The question asked candidates to explain the advantages **and** disadvantages: to gain access to the full marks allocated to this question candidates needed to have provided advantages and disadvantages of customised off-the-shelf rather than a bespoke system. The focus of this question was on the customised off-the-shelf approach – many candidates focussed on the bespoke approach. This strategy did not enable access to the full marks allocated to this question.

- 12 This question focussed on a fundamental concept within the area of software development. User requirements need to be, during the analysis and design stage, constantly referred to. Failure to do so may result, for example, in a system being designed that does not fully meet the defined requirements of the en-user.

Many candidates failed to score more than 1 or 2 marks for this question. Many simply re-wrote the question in their own words and then repeated these throughout their answer.

G055 - Networking Solutions (Written Examination)

General Comments

Tasks

It was often difficult to discern where a task started and ended. A significant number of candidates submitted work that was disorganised and lacked labelling. Examiners often had to guess where to start marking Task 2.

Task 2

The work produced for this task was often unstructured, making it difficult to find the answers among an unnecessarily large amount of text. The amount of work produced for Task 2 varied from Centre to Centre. Some answers were written over many pages, while others were presented over just 2 or 3 pages. Extra pages of work did not gain extra marks but did make the task of awarding the marks unnecessarily difficult.

Diagrams were generally well produced and, in most cases, showed a star topology with a central connecting device. Marks for showing cabling were given where the cable layout was in keeping with the physical rather than logical topology. Candidates often placed a server in the lockable cupboard but lost marks through not specifying the type of server. Stronger candidates were able to justify their choice of components, whereas weaker candidates tended to describe the components themselves. A significant number of candidates included components in their list that were not on the diagram. Some listed all possible cables and connection devices, in these cases marks may not be allocated where the candidate intended to gain them.

Evaluation

Many candidates were able to describe their methods, often stating that they had used books, the Internet or class notes for research. Stronger candidates could identify strengths and weaknesses. A good number of candidates evaluated their network design rather than the way they carried out Task 2 and hence gained no marks.

Task 3

This task was generally better answered than Task 2 and candidates, on average, gained a higher proportion of the marks. Most candidates were able to identify services such as email, file sharing and printer sharing. However, candidates often tended to describe how the services worked or how they might be of benefit in terms of time and cost saving. There was little reference to improvement in working practices.

Answers to this task were often unstructured, making them more difficult than necessary to decide where to award the marks. Quality of written communication was generally good.

Question Paper

Stronger candidates did well in the tasks and scored well in both Section A and Section B.

Average candidates produced average scoring tasks and gained average marks for Section A but were weak in Section B.

Weaker candidates struggled to gain any marks for Section B, indicating a lack of background knowledge or revision.

Report on the Units taken in January 2007

There were many instances where candidates had either not read the question properly, not understood the question, or had written what they knew generally about a topic in the hope of gaining some marks.

Where questions asked for features or characteristics, candidates often described benefits and limitations instead.

Comments on Individual Questions

Section A

- 1 This question was generally well answered, with all possible answers in the mark scheme being given.
- 2 Most candidates were able to state advantages but they often didn't expand on the points that they had made.
- 3 This question was poorly answered. Many candidates attempted to describe a peer-to-peer network rather than state the reasons for choosing it. Even these descriptions were often inaccurate.
- 4
 - a Candidates were often able to identify that data travels in one direction but other answers related to advantages or disadvantages of the ring topology rather than features.
 - b
 - i This was generally well answered by the drawing of a full or partial mesh network diagram.
 - ii Many candidates were able to identify that there is a direct connection between computers in a mesh network but, again, answers were often advantages and disadvantages rather than features.
 - c Answers were quite varied. Some candidates gave advantages only, some gave disadvantages only, some gave both and a few stated whether or not a mesh network was suitable.
- 5
 - a The majority of candidates answered this question correctly.
 - b Candidates were often able to identify that wires were twisted together in pairs. Some candidates described advantages and disadvantages of using this type of cable and connector rather than its characteristics.
 - c The most common answer was that the cable and connector were low cost. Candidates often didn't expand on the points made and so gained only one of the two available marks.
- 6
 - a, b, c, d Candidates generally gained one of the two available marks for each item of hardware except the proxy server. Very few candidates were able to describe the function of the proxy server. Answers lacked technical detail and it was difficult to find where to award the marks.
- 7
 - a, b Very few candidates were able to describe the TCP/IP protocols and few marks were gained. A number of candidates described protocols in general rather than this one in particular. Many candidates were able to identify that the TCP/IP protocols are Internet protocols.

Report on the Units taken in January 2007

- 8 a Most candidates were able to gain marks here. Those who didn't gain marks described the effects of getting a virus.
- b Most candidates were able to gain at least one mark. Answers often lacked detail such as email attachments or downloading from the Internet.
- c The most popular answers were anti-virus software and firewall. Candidates generally gained one mark for each of these, failing to gain the second mark because of lack of expansion.
- 9 a,b Many candidates did not appear to know what an extranet was or what it might be used for. Many referred to customers, suppliers and others using the extranet. Candidates did, however, gain one or two marks for part b, being able to identify the general hardware and software required for an Internet connection.

Section B

- 10 a Most candidates were able to identify that no cabling was required and many could identify that this meant less disruption to the building, more flexibility in positioning, or less issues with tripping hazards.
- b Candidates tended to gain one rather than two marks as they could identify a disadvantage but not expand on it.
- c This part was generally answered well but some candidates lost marks for forgetting to identify that the devices were wireless devices (for example, they might identify a router rather than a wireless router).
- 11 Some candidates knew about physical and logical topologies and gained one, or mostly two, marks. Many gained no marks.
- 12 This was particularly poorly answered. The question required candidates to describe characteristics of Ethernet technology and it was expected that candidates would identify the types of cable and connector used, the speeds it achieves, how it transmits data or its standard number. Many candidates did not attempt to answer the question, others described advantages or disadvantages that often didn't apply to Ethernet. Only those candidates who gained a very high overall mark answered this question well.
- 13 This was also very poorly answered. Candidates did not describe a checksum and often appeared to be guessing at an answer.
- 14 This question was poorly answered in general but a good number of candidates managed to gain three or four marks. Many candidates described how a communications log might be used to check what users were doing on the Internet. The emphasis was on users rather than on the equipment and answers, especially to part b, were rather vague.

Applied GCE (H115/315)

January 2007 Assessment Series

Coursework Unit Threshold Marks

Unit		Maximum Mark	a	b	c	d	e	u
G040	Raw	50	43	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G042	Raw	50	43	37	32	27	22	0
	UMS	100	80	70	60	50	40	0
G043	Raw	50	43	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G044	Raw	50	41	36	31	26	21	0
	UMS	100	80	70	60	50	40	0
G045	Raw	50	42	36	31	26	21	0
	UMS	100	80	70	60	50	40	0
G046	Raw	50	42	37	32	27	22	0
	UMS	100	80	70	60	50	40	0
G047	Raw	50	43	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G049	Raw	50	43	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G050	Raw	50	43	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G051	Raw	50	43	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G052	Raw	50	43	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G053	Raw	50	43	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G056	Raw	50	43	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G057	Raw	50	43	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G058	Raw	50	43	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G059	Raw	50	43	38	33	28	23	0
	UMS	100	80	70	60	50	40	0

Examined Unit Threshold Marks

Unit		Maximum Mark	a	b	c	d	e	u
G041	Raw	100	74	66	58	50	43	0
	UMS	100	80	70	60	50	40	0
G048	Raw	100	82	72	62	52	43	0
	UMS	100	80	70	60	50	40	0
G054	Raw	100	63	56	49	42	36	0
	UMS	100	80	70	60	50	40	0
G055	Raw	100	62	55	49	43	37	0
	UMS	100	80	70	60	50	40	0

Specification Aggregation Results

Uniform marks correspond to overall grades as follows.

Advanced Subsidiary GCE (H115):

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

Advanced Subsidiary GCE (Double Award) (H315):

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

Cumulative Percentage in Grade

Advanced Subsidiary GCE (H115)

A	B	C	D	E	U
2.0	12.8	40.7	70.6	93.7	100.0

There were 425 candidates aggregating in Jan 2007.

Advanced Subsidiary GCE (Double Award) (H315)

AA	AB	BB	BC	CC	CD	DD	DE	EE	U
4.2	8.3	8.3	20.8	29.2	50.0	66.7	75.0	95.8	100.0

There were 26 candidates aggregating in Jan 2007.

For a description of how UMS marks are calculated see;

http://www.ocr.org.uk/exam_system/understand_ums.html

Statistics are correct at the time of publication.

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