

GCE

Applied ICT

Advanced GCE **AS H515/H715**

Advanced Subsidiary GCE **AS H115/H315**

OCR Report to Centres June 2014

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

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

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H115/315 GCE Applied ICT (AS units)

G040 Using ICT to Communicate

General Comments:

Most of the work seen this series was appropriate for this level and realistically assessed, although there was some very lenient assessment. Candidates need to ensure that they provide appropriate detail in planning, annotations and descriptions and appropriate depth in explanations and evaluations.

Centres had provided suitable assignments for candidates, with many centres using or adapting one of the sample assignments provided by OCR.

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. Draft copies of 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 to ensure the moderator can judge the accuracy of the descriptions given.

Comments on Individual Tasks:

Task a)

This requires candidates to write a formal report which compares two documents from three organisations. It is vital that candidates choose the same two types of document from each organisation and that a comparison between the three similar documents is actually made. Too many candidates described and evaluated each document separately and then provided a very brief comparison at the end. By doing so they often 'ran out of steam', with descriptions of the later documents lacking the detail provided for the first one or two. Candidates should consider discussing all three documents together so that they can identify the similarities and differences as they complete the report.

House style should be considered in relation to the two documents from the same organisation, so that similarities of colour, fonts and use of logos can be discussed. There was a tendency for candidates to discuss house style in relation to a single document, where what they were really discussing was consistency. Although more candidates were able to discuss writing style correctly, they also need to identify the good and bad points of the writing style used in relation to the purpose of each document. Some candidates confuse writing and textual styles.

For Mark Band 3 candidates need to ensure the reports produced critically analyse the documents and that presentation style, writing style and house style are compared. Critical analysis requires candidates to explain why particular features are good or bad. The explanation should be based on accepted standards wherever possible, rather than just the candidates' own opinions. It is also essential that improvements suggested are relevant, fully justified and related back to the purpose of the document.

Task b(i)

To achieve beyond Mark Band 1, candidates need to show evidence of planning for all six communications, with some planning being detailed. They also need to have annotated draft copies to show development. Many candidates provided excellent planning and drafting of some of their communications but their work lacked the consistency required for the mark awarded. Detailed planning should include plans for layout (including component positioning and possibly measurements), details of the font styles, colour schemes and content (text, graphics and other media) to be used, along with a possible source of this content. Draft copies to be annotated should be electronic copies of the complete communication to match the designs. Some candidates misunderstood this requirement and produced and annotated several hand-drawn 'drafts' or provided partially completed stages as drafts. Neither is acceptable evidence. Candidates should annotate each draft to indicate changes that they will make to improve it prior to implementing these changes to produce a further draft or the final copy. For Mark Band 3 communications need to be fully planned and drafted. At this level, planning should include sufficient detail to allow somebody else to make the communication as planned and drafting should show in detail how the communication was developed. Most candidates were able to provide bibliographies that included the required detail. They need to ensure that all the sources used are listed. This is often best achieved by producing a separate bibliography for each communication, rather than creating a single bibliography for all, when it is easier to omit some of the sources.

Task b(ii)

While some very professional communications were seen, others lacked the quality and consistency required for Mark Band 3. Spelling and grammar errors often remained in the final communications which detracted from their quality. Communications need to be of a consistently high standard with borders and shading used appropriately. Presentations should have simple bullet points and not paragraphs of text in a small font which, on a screen, would be very difficult to read from the back of a room. Documents printed in black and white should have font and background colours chosen carefully to aid viewing. There needs to be some evidence of how information from existing sources has been adapted. This was provided in some portfolios but missing from others. A few selected screen shots showing the original material and the outcome after manipulation is sufficient. Mark Band 2 of this task requires that communications are mailable. A letter without such standard content as a date and the recipient's address does not fall into this category.

Task b(iii)

Most candidates provided evidence of using a range of software features including automation and the use of sound and video was evident. To be credited, automated features need to have been used appropriately. A computer generated table of content is of limited value if page numbering has not been applied. Many candidates had included a wide range of automation. Where candidates had created online forms, they had clearly used a range of features that allowed for ease of data entry. To award high marks in this task, in addition to a solid range of graphics and other media, appropriate automation should be used at every opportunity.

Task b(iv)

The evaluations in many instances were ongoing and detailed. This is an improvement on previous series. In other instances they tended to be descriptions of what candidates did and were not always consistent across all documents. Candidates need to ensure that they include an evaluation of their own performance. They also need to ensure that they explain how they would approach a similar task in future. Centres could encourage candidates to write a final evaluation focusing on how they worked during the whole unit, including the comparison of documents in task a and what they gained from this task.

Task b(v)

There continues to be some misunderstanding of the requirements of this task. Candidates are required to discuss six different communication methods and explain the technologies that support those methods. There is an extensive list of appropriate communications in the unit content of the specification. This can be found in the second bullet list under the heading 'The information age'. The types of technologies candidates should consider can be found in the third bullet list. Some candidates had provided very detailed descriptions of the communication methods but limited the mark that could be awarded by providing little detail about the technologies. Mark Band 3 requires candidates to describe at least six of the communication methods listed within the specification and their relative advantages and disadvantages. Technologies utilised should be linked into the method rather than being a separate section. It is worth repeating that evidence for this task must form the content of one of the six communications created with suitable planning, development and evaluation. The detail required is more easily achievable if candidates present the information as a report or newsletter, rather than a slide presentation.

G041 How Organisations Use ICT

General Comments:

It was pleasing to see that there was a considerable improvement in the performance of candidates on this paper when compared with the performance in the June 2013 examination. In particular, in Section B, candidates were better prepared for answering questions relating to the wider unit specification than in previous series.

When producing their report for Task 3 and answering questions in Section A, candidates must ensure that their responses are clearly applied to the case study, rather than providing generic responses that would be more appropriate to Section B.

Candidates must ensure that Tasks 2 and 3 are clearly labelled and that tasks are presented in order so that examiners can locate the tasks they need to mark. All three tasks should be attached to the examination paper. Where candidates have not completed Task 1, they are at a distinct disadvantage when answering questions in Section A, as they will not have gained the required familiarity with the case study.

Candidates who were familiar with the case study performed well on the first five questions providing they had read and interpreted the question correctly. The importance of reading the question carefully cannot be over-stated.

Candidates performed less well on the later questions in Section A that required them to use higher level thinking skills and apply their answers to the specific situations in the case study. Candidates would benefit from guidance and practice in answering this type of question.

Comments on Individual Questions:

Question No. Task 2

Most candidates clearly and correctly identified the six senders and receivers of information. When the diagram is created electronically, it is important that candidates make text boxes large enough for the whole job title to be visible. Marks were sometimes lost when this was not the case. If candidates choose to use initials or abbreviations, they must provide a key. As examiners mark the senders/receivers first and then only mark information flows between correct senders/receivers, errors in these can have a significant effect on the total mark for this task.

Candidates need to read the task carefully to identify the start and finish points of the process. Some candidates included the Operations Director, whose involvement is before the start point in the task. While candidates did not lose marks for doing so, the more they include in the diagram the more difficult it is for them to draw it clearly. It should also be noted that the head office server is not a sender or a receiver of information, rather, the local area network, including the server, is the method of transferring the information.

While many candidates labelled sufficient information flows (arrows) correctly to gain full marks, others needed to be more accurate in their labelling and layout of the diagram. Marks can only be awarded for labels that unambiguously relate to a single correct arrow. If candidates find it difficult to manipulate text boxes to remove such ambiguity, they could be advised to write the labels along the arrows by hand. Completely hand drawn diagrams on A3 paper should not be necessary and should be discouraged.

Accurate labelling should make it clear to a third party what information is being passed from the sender to the receiver; for example 'publishable version of advertising materials' rather than just 'publishable version'. The labels must identify the information, rather than describe a process; for example 'instruction to start print run', rather than 'start print run'.

Each flow of information must be shown by a separate arrow from the sender to the receiver. Where the same information is being sent from one sender to two receivers, two arrows should be drawn. A branching arrow is not acceptable. Similarly, where information is being sent both ways between two senders/receivers, two arrows should be drawn. A double headed arrow is not acceptable.

Question No. Task 3

Most candidates used Internet research, personal experience and, in some cases, interviews with supermarket staff to determine the impacts of replacing some checkouts with self-service checkouts. There was, however, very limited reference to the case study in most candidates' reports. This limited candidates to a mark at the lower end of the middle mark band.

To gain marks in the highest band, as well as making clear reference to the case study throughout, candidates' reports needed to be well-written and balanced in relation to both positive and negative impacts on the company, the staff and the customers. Most focussed on one or two areas, rather than providing the required balance.

Candidates need to ensure that they include a brief evaluation of the methods they used to produce their report. This should focus on the research methods but may include such aspects as planning the report structure. Candidates are told that the report must be word processed so reference to their reason for doing so are not appropriate. Candidates must ensure that they actually state what method they have used – some evaluations were too general.

Question No. Q1

Most candidates correctly identified the three job functions, although some, incorrectly, gave a job title. Candidates need to be taught the difference between the two. Candidates were then required to identify specific tasks carried out by each job function, such as 'ordering office supplies', rather than generic responsibilities such as 'involves the day-to-day tasks done in an office'.

Question No. Q2

Most candidates gained 2 marks for this question for covering the aspects of the Distribution Manager's role given on the second page of the case study. Those candidates who gained 3 or 4 marks included aspects of the role that were described in other parts of the case study, including the section on 'Procedures for re-stocking supermarkets'.

Question No. Q3

Candidates who read the question carefully scored well in this question, gaining a full 6 marks by correctly identifying the two job roles and then describing the reporting line to the Managing Director. Some gave job roles at the bottom of the hierarchy but not within a supermarket. Many of these were then able to correctly describe the reporting line from one of these job roles to the Managing Director to gain follow through credit in part (ii).

Question No. Q4(a)(i)

Most candidates were able to give the correct answer.

Question No. Q4(a)(ii)

Candidates must be able to distinguish between how information is obtained and how it is subsequently processed. Candidates needed to be able to accurately describe the use of the signing in book by staff to record start and finish times, the Store Manager's use of the book to calculate hours worked and the method of getting this information to the human resources department. Most candidates were able to describe at least one of these steps; few described all three accurately.

Question No. Q4(b)

Many candidates preceded their answer to this question either with a response that would have gained them marks in Q4(a)(ii) or with a description of the processing and calculation for salaried staff. While many went on to fully describe the correct processing and calculations, others were only able to fit in part of the required response. Candidates must read the question carefully and ensure that they only include the information required.

Question No. Q5

This question also required candidates to read the question carefully, which many failed to do. This resulted in many candidates providing answers that related to re-stocking the warehouse, rather than a supermarket, as required in the question. Candidates also need to be clear about the differences between hardware, software, input data, processing and outputs. Part (i) required one of the main specific items of hardware used, rather than generic items of hardware. To gain marks in part (v) candidates needed to make it clear whether the output they were describing related to perishable or non-perishable goods.

Question No. Q6(a)

Where candidates were familiar with the case study they were able to gain marks for this question. Many misunderstood the question and gave benefits of using manual rather than automated systems. The question specifically related to an automated system for storing and retrieving goods in the warehouse, rather than an automated re-ordering system. Some candidates' answers related to the latter.

Question No. Q6(b)

As with Q6(a) the quality of answers related to candidates' familiarity with the case study, although more were able to gain marks here than in Q6(a). Similar misunderstandings were shown here as were shown in the previous question.

Question No. Q6(c)

While candidates knew the generic impacts of introducing automated systems, to move out of the lowest mark band candidates needed to apply their knowledge to the warehouse system in PLS. Few were able to do so.

Question No. Q7

Similarly to Q6(c), candidates could state the principles of the Data Protection Act but needed to explain what PLS would need to do to comply with these principles when collecting and storing customer data for a customer loyalty scheme. For example, many candidates knew that customer data needs to be kept up-to-date and checked regularly but could not explain what PLS would need to do to ensure this was the case. As the company already stored and processed staff data it was assumed that they were already registered with the Information Commissioner's office and had a Data Controller in place.

Question No. Q8

Most candidates knew that commercial organisations sell/provide goods or services but not all recognised that their main purpose is to make a profit.

Question No. Q9(a)

Most candidates were able to give two different purposes for using email when communicating with customers providing they had fully read the question. Some needed to expand on their answers to gain the second mark for a description of each purpose.

Question No. Q9(b)

To gain good marks in this part of the question, candidates needed to clearly apply their response to the company. Generic answers relating to viruses and hacking did not gain marks. Some candidates gave thoughtful answers relating to customers not receiving the information either because they did not access their email regularly or because they had set up spam filters.

Question No. Q10

Many candidates performed well in all parts of this question and had clearly studied and understood the topic. Some care was needed in distinguishing between effects on the staff working from home and the effects on their employers. For example, while a lack of motivation will be an effect on staff, them not completing the work as a result is more of an issue for the employer, unless the candidate goes on to explain that this might cause stress when trying to meet deadlines. Lack of equipment/software/Internet access was sometimes given as a negative effect on staff in Q10(b). If the member of staff did not have these items either the employer would provide them or the member of staff would not be given the opportunity to work from home.

G042 ICT Solutions for Individuals and Society

General Comments:

Most of the work seen was appropriate and accurately assessed but there was some very lenient assessment. The majority of centres provided suitable assignments that gave candidates the opportunity to meet all the assessment requirements, with many using or adapting one of the sample assignments available from the OCR website.

For moderation to run smoothly, screen prints must be large enough for their content to be easily read. The quality of the printing needs to ensure the screen prints are crisp and clear.

Comments on Individual Tasks:

Task a)

Candidates must make correct use of the advanced search facilities of search engines and construct their own search strings using operators correctly to gain high marks in this task. It is vital that candidates are taught these skills and that they are assessed accurately. To gain high marks in Mark Band 2 candidates should not evidence advanced searches where the same search terms had been entered into each box; this is unproductive. Google's advanced search now helpfully provides instructions on how to replicate the various options in the standard search box. Unfortunately, many candidates misunderstand these instructions and think that this is what they must enter in the fields of the advanced search, which is not correct. Candidates need to be taught the proper use of the advanced search facility and that this guidance can be used to help them write their own search strings, as required by Mark Band 3.

While some good use of logical and other operators was seen, some candidates struggled to make correct use of these techniques. Typical errors to be avoided include: using NOT in Google with the first few results including the word which they wanted to omit, not using quotes around phrases, not using spaces properly around + and – operators, entering logical operators in lower case and placing logical operators within quotes. Errors need to be taken into account when awarding marks for this task as both Mark Bands 2 and 3 require the techniques to be used correctly. For high marks within Mark Band 3, candidates need to use a wide range of operators and other search aides within their own constructed search strings.

Task a also requires candidates to list the information required before they go looking for it; a detailed comparison of search results and a recommendation of which search engine is the best to use for the investigation. Candidates need to ensure they take a logical approach to this task to ensure that evidence is not missed out. A detailed comparison will not only compare the number of results yielded but also the quality of the results in terms of the relevance and validity of the information being displayed. Using a table often aids the comparison. For higher marks the recommendation of the best search engine to use needs to be in detail and explanations should draw on the results from the searches and the comparisons made. Boolean and other search aides should be used within the chosen search engine only, to find all the information required to complete the investigation.

Task b

There was some improvement in candidates' performance this series. Many candidates had identified the information required from the website/online database. Where candidates had identified the required information they had successfully used appropriate features and carried out complex searches to find the information. Generally complex searches were limited to one or two searches. Candidates need to have carried out a range of searches to achieve the highest

mark. Candidates also need to be more explicit about whether they had found the required information. In some portfolios the navigation features used were obvious. In others, there was too much focus on searches and the use of navigation features was overlooked; both navigation of a large website and searching an online database need to be evidenced.

Task c

Most candidates had been provided with a suitable local database to interrogate for task c – a range of suitable databases for most of the commonly used assignments can be found on the OCR social community. Some had been expected to create their own database, which is not required for this task. Queries were produced that showed the use of relational and logical operators and most candidates had created reports. This allowed them to achieve a mark in Mark Band 2. Most candidates needed to use a wider range of operators to achieve Mark Band 3. They also needed to ensure that reports had been formatted appropriately to make them readable and understandable. This might include editing the report title and field headings, increasing the width of columns to prevent data being truncated and changing the page orientation if necessary. Candidates might also use techniques such as grouping to make the data easier to understand.

Task d

Some well-designed spreadsheets were seen for task d that made good use of complex formulae and functions and used well constructed macros to speed up the input of data and the production of results. Other spreadsheets were too simple for this level of qualification with macros mainly used for navigation. The Amplification of Criteria within the specification suggests the types of formulae and functions expected for Mark Bands 2 and 3.

Macros should replace more than one action to be of value. Creating a macro to print a whole sheet is fairly pointless, as the user would only need to click the print button on the toolbar, but creating a macro to print a selected area of the sheet would reduce the number of actions required.

It was not always possible to determine whether the spreadsheet was well-designed, as candidates had produced a report on the production of the spreadsheet, with cropped screen shots of the relevant areas of the spreadsheet or the functions used. Such detailed documentation is not required. Candidates should provide printouts or screen prints of each sheet in both value and formula view and only describe and evidence those features that are not obvious from these printouts.

Some very thorough testing tables were seen that covered all aspects of the spreadsheet but not all candidates went on to provide evidence that the testing had been carried out, other than a comment in the table. Candidates should provide screen print evidence to show that the tests have been carried out. Other candidates based their testing on whether the macros worked, rather than the accuracy of results produced by formulae. A simple way of illustrating that formulae work would be to replace the data found with dummy data, i.e. 1s 2s or 10s so that it can be easily seen that the formulae work as intended. Alternatively, candidates can do some manual calculations, showing their working out, using the actual data.

Task e

This task requires candidates to present the information they have found to answer the question they were investigating. For example, if they were investigating the best university for them to attend, it would be expected that they state the chosen university and then explain why they had chosen it as opposed to the alternatives they were considering. They should illustrate their explanation with examples of information they had found or calculated during the investigation. Too often the emphasis was on how the candidate had found the information, rather than how it

supported their conclusions. Where candidates include descriptions of how they went about finding the information, the most appropriate mark band is likely to be Mark Band 1. The presentation aspect is also important. Candidates should apply the design principles learnt in Unit G040 when producing their presentation of results. Candidates must list their sources to be awarded marks in this task and this list should be an integral part of the presentation, rather than a separate list of sources for the whole unit.

Task f

This task requires candidates to evaluate the methods used to search for and present information. This was evidenced well by some candidates but others provided a task by task evaluation or focused only on search methods rather than the techniques used to both search and present the results. Ongoing reflection is required for Mark Band 3 and, although this was present in some cases for searching, candidates often forgot to evaluate over time how they were presenting what they had found. Although presenting results mainly refers to task e, candidates could also gain marks for evaluating how they adjusted the reports made in task c to suit their purpose better and how, in task d, they adjusted the charts they had automatically generated with a wizard, so the information displayed was easier to understand. Care is needed that candidates actually evaluate the methods used, rather than simply describing what they did.

Task g

Task g requires candidates to discuss the impact of the availability of electronic information. There were some improvements evident this series, as candidates had clearly thought about the impacts rather than just describing examples of the uses of electronic information. Mark Band 2 requires candidates to explain the impacts of the availability of electronic information on people and situations outside of their normal experience. Some candidates provided a range of good examples, such as political restrictions and early warning systems. Others needed to broaden the range of situations they explained. The Amplification of Criteria mentioned earlier suggests other aspects that could be covered. Other sources could also be used, such as the technology sections of news websites. Candidates need to ensure that they write in sufficient detail for higher mark bands. They also need to ensure that their report is well-structured with accurate spelling, punctuation and grammar.

G043 Systems Specification and Configuration

General Comments:

Most candidates were provided with suitable assignments that allowed them to provide the evidence required for this unit. In most cases centres had used or adapted the sample assignments provided on the OCR website. Some issues have arisen with this unit due to the changing versions of the MS Windows operating system. Centres need to ensure that candidates can demonstrate all of the requirements of task d in some way.

Comments on Individual Tasks:

Task a

Candidates are required to investigate and describe in detail what the user wants to do with the system they will specify. This should include detailed descriptions of all tasks together with details of what data will be input and how the output will be presented. Candidates should then consider the types of input and output devices and the software required. For example, they might suggest the need for a scanner or word processing software, rather than specifying the specific version of each, which should appear in task b. It is important that the types of input and the outputs required are considered first, as this will determine what software and hardware is required.

Task b

This task requires the candidate to produce a specification for the system they will recommend. They must ensure that they actually produce a specification, rather than just a comparison of components. This should be a stand-alone document that could be presented to the user for their approval. The specification must include all of the hardware and software required, any configuration changes needed and designs for toolbars, templates, menus and macros that they intend to install in task d. For the hardware, candidates may find it easier to research and recommend a complete off-the-shelf system, rather than try to recommend components to build a system from scratch. The latter approach often means that candidates omit vital components, such as a case or power supply, from their list. While most candidates had provided good hardware and software specifications, specification of the configuration changes required and designs for toolbars, templates, menus and macros were sometimes omitted or needed more detail for higher marks.

Task c

Most candidates provided suitable evidence of the practical tasks carried out by providing photographic or screen print evidence supported by a description of what they had done. There was some good use of observation records but these did not always give the individual comments on each candidate's performance needed to fully contribute to the evidence. Testing was often the weakest aspect of this task. Candidates must include a test specification as well as evidence of testing to go beyond Mark Band 1 and there must be evidence of testing for all mark bands. 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.

Task d

Candidates need to include clear evidence of creating templates, toolbars, menus and macros such as annotated screen prints or printouts. Any screen prints must be large enough for the content to be read. At least one each of all four items must be evidenced to go beyond Mark

Band 1, including evidence of testing. For Mark Band 3, more than one of each item must be installed and tested; the installed templates, toolbars, menus and macros must be those designed by the candidate and must demonstrably improve the efficiency of the user. An explanation of how the user's efficiency would be improved would be helpful here.

Task e

Evidence for this task was mostly good, especially in relation to the ergonomics aspects. Candidates need to ensure that they include a similar level of detail in relation to management issues. All of the topics under the heading Safety and security within the unit specification should be discussed. Centres are reminded that the quality of the candidates' written communication is assessed in this task. Poor structure and errors in spelling, punctuation and grammar need to be taken into account when awarding marks.

Task f

Most candidates are now including the correct content for this task. Some candidates included extensive notes about different types of programming language. This evidence is also not relevant for this task. Centres should refer to the 'Basics of software development' section within the unit specification.

Task g

Candidates who approached their evaluation by addressing the evaluation of their specifications and the evaluation of the methods they used for installation, configuration and testing as two separate sections performed better in task g. Candidates need to ensure that they include sufficient detail in their evaluations, especially for higher marks.

G045 Software Development - Design

General Comments:

Most candidates provided appropriate evidence for this unit. Others needed to demonstrate more understanding, particularly in relation to the feasibility report, data flow diagrams (DFDs) and entity relationship diagrams (ERDs). The sample assignment 'The Perfect Pie' was a popular choice for this unit. Some centres had produced their own assignments, which were equally valid.

Comments on Individual Tasks:

Task a/b/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, possibly going beyond those listed in the unit specification. To gain Mark Band 3, candidates should explain the advantages and disadvantages of each tool or technique and how it might be used – examples for the given problem are best included here. While candidates provided good descriptions with well-chosen examples in relation to investigation methods in task c, many needed to include more detail in their descriptions or include examples of how each technique would be used in tasks a and b.

Task d(i)

This task requires candidates to report on the feasibility of alternative solutions to the problem set. While more candidates considered feasibility than in previous series, this was often restricted to the generic feasibility of the problem or the chosen solution only. Each possible solution should have its feasibility explored so that the best solution (most feasible) can be determined. Good practice would see learners look at the technical, economic, legal, operational and social aspects of each solution – a cost benefit analysis study could also be produced – this would provide conclusive evidence of which proposed solution is the best. Centres are reminded that the quality of the candidates' written communication is assessed in this task. Poor structure and errors in spelling, punctuation and grammar need to be taken into account when awarding marks.

Task d(ii)

Candidates must include designs for all input screens, output screens and reports. The latter should include consideration of any calculations required to produce the output. Standard design concepts, such as font styles and sizes and the colours to be used need to be considered to progress beyond Mark Band 1. Candidates need to produce detailed designs with clear evidence that they had considered standard design concepts. It is expected that these designs will be hand-drawn but candidates should be encouraged to use a ruler to ensure they are neat and easy to follow. If candidates produce designs electronically, they must be designs and not implementations of the forms and reports.

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. These need to use consistent symbols. The flows/entities represented on the Level 0 must be matched by those expanded in the Level 1, showing a full and complete representation of the current system. This was not always the case. All external entities, data stores and processes must be

shown with the links between them being correct. All entities, processes, stores and data flows need to be described in detail to achieve Mark Band 3.

Task f

Entity relationship diagrams (ERD) need to accurately represent the proposed solution. Candidates struggled to produce a correct ERD where the proposed system was over-complicated. Relationships which end up being in a circle or one to many relations which are the wrong way round or are actually many to many relationships need to be avoided. The supporting documentation required is best provided by a data dictionary. This needs to match the ERD and include all of the required detail, as described within the unit specification.

Task g

This task requires candidates to evaluate both the solution and their own performance. Candidates must link their evaluation back to the assignment so that they are considering the suitability of their solution for the organisation being studied. Care is needed that they actually evaluate, rather than simply describe. Candidates also need to ensure that they provide an appropriate level of detail, especially for higher marks.

G046 Communicating using Computers

General Comments:

The work submitted for this unit was generally appropriate. The majority of the work seen was based on one of the sample assignments provided on the OCR website. Care is needed that screen prints are of an appropriate size and clarity for the contents to be read, especially when these form part of a user guide. More use of witness statements would help to confirm the installation and configuration required by task e.

Comments on Individual Tasks:

Task a

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. The organisations' objectives need to be stated overtly, so that candidates can justify improvements in relation to these objectives to achieve Mark Band 3.

Task b(i)

Centres should refer to the 'Internet websites' section within the specification to identify what is meant by Internet technologies for tasks bi and di. Discussion of HTML is not sufficient. There were some good descriptions of the purpose and services provided by the chosen website. For Mark Band 3, as well as explaining the use of the two Internet technologies, candidates must analyse how well the purpose of the website is met.

Task b(ii)

Candidate produced appropriate structure diagrams for their chosen site. Some care is needed to ensure the site chosen is not overly complex and that sites with dynamic content are avoided. Annotation to show understanding of the HTML code used in the site could be improved. 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 struggle when they try to annotate sections of CSS or JavaScript, rather than simple HTML tags, such as ` `, which is all that is required. Candidates do not need to include the entire code for a number of 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. Care is needed that a sufficient range of different features have been explained. The web pages annotated should be part of the website discussed in task bi, rather than an entirely different site or one they have created.

Task c

The quality of candidates' written communication is assessed through task c, so it is vital that candidates produce a single well-structured report to gain high marks. As in other units, account needs to be taken of poor spelling, punctuation and grammar when awarding marks. Some candidates showed good understanding of the requirements for creating and hosting a website. Other candidates tended only to consider the costs of hosting the site online; bandwidth needed to be given more consideration and candidates needed to describe a range of connection methods, hardware and software. The hardware and software should be that required to produce the website and host it locally. This will include a web server and software, as well as

web design software. For Mark Band 3 candidates should include some calculation of the likely bandwidth requirements and justification of the chosen ISP in relation to technical requirements.

Task d(i)

Candidates are required to design and create a web page. Whilst they are only required to design and create a single page, candidates should plan the website it will be part of, at least in outline. Candidates must identify at least two different Internet technologies they have used in their web page to achieve Mark Band 2. Evidence that the site has been uploaded is required for Mark Band 3, together with a high quality web page and explanation of the Internet technologies used in it. Most candidates had produced a webpage of an appropriate quality but needed to ensure the supporting evidence was also completed appropriately.

Task d(ii)

This task is about evaluating how candidates approached the development and uploading of the web page, rather than the web page produced. This was accurately assessed in most cases, although candidates do need to ensure that they include the steps taken to publish the website online, if they were able to do so.

Task e

The description of hardware and software required for Internet use is often good, although information is less so. User names, password, addresses of mail and proxy servers are all required. Evidence of the practical installation and configuration tasks was also appropriate, although a detailed witness statement is helpful to confirm what each candidate did. For Mark Band 3, candidates should be producing detailed documentation that would enable someone else to install and configure the software. This should be separate from the evidence that they actually carried out the installation. It should include all of the required settings.

G047 Introduction to Programming

General Comments:

Centres who offer this unit have the expertise to deliver it well. The work seen was generally of a good standard and accurately assessed. Centres should include copies of the program designs they provide to candidates, so that the moderator can confirm how well the programs created match the designs.

Comments on Individual Tasks:

Task a

Centres need to ensure that the program listing provided includes sufficient techniques for candidates to identify. Where candidates are given longer programs with a wide variety of programming constructs and techniques, annotation can be more detailed as they have more to work on. Some simple programs end up providing limited evidence which does not meet the requirements. Often, comments about the tools used to ensure that the programs are readable and maintainable, as required for higher marks, were limited – if the learners have entered the code listing on their own, they can ensure that these aspects are in place and identify them. Centres need to differentiate between the two parts of the task. Task ai requires candidates to identify the techniques, e.g. they should indicate where different constructs, such as selection or repetition, have been used, while task aii requires candidates to explain what these constructs do in relation to the program. For example, in the case of modularity, candidates should explain what a subroutine, function or procedure is designed to do, how it is defined and how and when it is called elsewhere in the program.

Task b

Most candidates had produced suitable programs for task b. There was evidence of a good range of programming features and constructs across the suite of programs, although candidates should be encouraged to use CASE statements to replace multiple nested ifs to improve the efficiency of the code. In task bi, for the award of Mark Band 3, all of the techniques listed in the 'Program structure' section on page 54 of the unit specification must have been used across the programs created, including those to improve the readability and maintainability of the programs. Techniques to improve readability and maintainability needed to be better evidenced. This should include: comments using the comment facility of the language, naming variables appropriately and using indentation for selection and iterations. In task bii, the purpose of the programming language used needed to be addressed more overtly. For task biii, most candidates included some evidence of testing that the program worked as intended. Some discussion of the techniques used to improve the efficiency of the coding would further improve the evidence. Without some evidence of the briefs/designs given to candidates it is difficult for moderators to confirm that the programs meet these briefs/designs.

Task c(i)

For high marks in this task, candidates need to have described a wide range of programming languages other than those used in tasks a and b. The Programming languages section within the unit specification lists the types of languages that candidates should know about, with examples. Candidates gaining Mark Band 3 should be able to describe a number of these in detail and be able to explain their type and purpose. Mark Band 3 should not be awarded when either the range of languages or the detail is limited. Care is needed to ensure that the evidence for this task is authentic, as it is very easy to include material from the Internet and other sources.

Task c(ii)

Evidence for this task was good in nearly all cases. Candidates were able to evaluate their own programs successfully and to suggest and make suitable improvements. As part of tasks a and b candidates need to comments on the tools used to make the code readable and maintainable - this could form some good analysis within the evaluation. Learners are also expected to comment on the suitability of the languages chosen – this again could form some good written analysis within the evaluation.

H515/715 GCE Applied ICT (A2 units)

G048 Working to a Brief

Introduction

As has been mentioned in previous reports, most centres are now providing clear details of their assessment decisions, with clear reference on the unit recording sheet (URS), combined with further indications on the candidates' work. Where this is done, it makes the process of moderation very much more straightforward, as one is more able to appreciate the decision making process through which the centre has gone when awarding marks.

The volume of evidence provided by candidates is now becoming more reasonable, although some centres are still erring on the side of overkill. In the best cases, centres have a clear understanding of what is required for each task and are ensuring that their candidates are fully aware of these requirements. This is not necessarily huge reports, but, rather, focussed pieces of work which address each of the tasks precisely. Centres are reminded that for unit G048, it is not necessary for candidates to provide their completed product, as this is assessed as part of the related unit.

It is noticeable that, where centres play the role of client or are able to enlist the use of a third party to play this role, candidates have a more realistic experience and are able to write with more focus and clarity throughout their work.

Finally, centres are reminded that candidates must select and complete a brief from the list published by OCR. It should be stressed that these tasks can only be used for the year for which they are valid. Where centres allow candidates to work as part of a team, each candidate should still produce an assessable piece of individual work. For example, where candidates are asked to create a website, each candidate should produce a website, rather than a few pages of a website that will then be combined with pages produced by other members of the group.

Comments on Individual Tasks

For task a, as indicated above, many candidates produced reams of material. Unfortunately, a great deal of this was often irrelevant. The focus of this task is on how experts, or those with some experience, complete the same or a similar task to the one that is required. The outcome of this analysis is then used as the basis for the design and creation of the product. Where candidates are able to focus solely on the how's and the why's of the process, there is often a very clear link between this analysis and a successful outcome for the whole process of creating a solution to the brief. However, in many cases, candidates have been encouraged to write about the structure and focus of an organisation. Whilst this may be an interesting introduction to the course, it is not part of the assessment for Task a and should not be submitted.

Both aspects of Task b are now completed to a very high standard, albeit with many candidates choosing to only use one formal planning technique, rather than two, which does limit them to Mark Band 2. However, a significant minority of centres continue to over-reward plans that are actually in quite thin detail. Where candidates are planning to complete the whole unit, rather than the task set by the brief, marks are unlikely to be high, due to the lack of detail that usually accompanies such plans.

The three diary tasks have benefitted from some real clarity of expectation. Task c(i) has, traditionally, been well completed, albeit with interesting interpretations as to what constitutes initiative. For Task c(ii), candidates can only be awarded marks from beyond Mark Band 1 if they show the use of formal techniques – such as meetings with the client – and an awareness of the impact of their actions on others. Centres continue to award Mark Band 2 and beyond where candidates have given no evidence of the use of formal techniques to complete the overall task.

For Task c(iii), in order for candidates to be awarded beyond Mark Band 1, they must provide justification for the actions they have taken in order to address issues. In some cases, marks have been confirmed where the justification has been implied, but centres are reminded of the need for candidates to clearly meet all criteria for the mark awarded. This task continues to be one where centres are awarding marks with very little justification.

The amount of work submitted for Task d has started to increase. There is no correlation between the amount of work submitted and the final marks awarded; rather candidates are assessed on their knowledge and skill, both of which can be displayed in a relatively short document. Furthermore, this document should be a support document, handed to an end user. Therefore, a further diary, showing how the product has been created, is not worthy of any marks. Unfortunately, such evidence continues to be presented and awarded high marks.

For the three report tasks, there has been a clear improvement in the quality of the analysis that is being done before the reports are written. This is reflected in the scores that have been awarded and confirmed for these tasks. However, it is worth stressing that Task e should be a report into the effectiveness of the planning, rather than what has been done. Therefore, candidates should be writing about how they identified tasks and how effective this identification process was, rather than how useful a particular tool was in helping the candidate to plan overall. In essence, in order to evaluate the quality of planning that was completed, or the effectiveness of the production of the product, candidates need to be talking about how well they have done what they did, rather than analysing the efficacy of the tools they used.

For Task F, candidates are clearly aware of the requirements of the task and are producing reports which, typically, score well. This is especially true for those candidates who create separate reports for Tasks E and F.

Finally, Task G continues to prove to be somewhat confusing for some candidates. When done well, this report looks at the overall product from the point of view of end users, rather than the student themselves. This focus is clear from the URS form. However, in other cases, some candidates continue to write reports which are clearly based solely on their own opinion. Where candidates can be encouraged to gather the thoughts of others, this generally bears fruit, as this feedback then becomes the focus upon which this final review is based.

G049 Numerical Modelling Using Spreadsheets

General Comments:

More centres correctly identified that the emphasis of this unit is on numerical modelling rather than data manipulation, as has been fed back in previous Principal Moderator reports for this unit. It is pleasing to note that the proportion of centres failing to focus on numerical modelling was lower than in previous series. The problem that the candidates attempted to solve in many cases provided the opportunity for significant numerical processing with a small number of centres focussing on spreadsheet tasks with little numerical modelling. Using a spreadsheet to simply store and present information, e.g. database type solutions that involve little or no data processing are not suitable for this unit as candidates are unlikely to be able to access the marks relating to numerical modelling in the various tasks.

Comments on Individual Questions:

Question No.

Task a

The design specifications produced by many candidates were detailed while in other instances they lacked the necessary detail, for example describing the calculations to be performed. At the simplest level, design specifications 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 this task produced a specification that was detailed enough to enable a competent third party to implement it independently.

Tasks b(i) and b(ii)

The solution implemented by some candidates showed clear evidence of the use of complex spreadsheet facilities, as listed within the unit specification, as well as clear evidence of a range of spreadsheet functions appropriate to the solution of the problem. The majority of centres correctly identified the use of specialised built-in functions with a small proportion of centres incorrectly crediting candidates for functions such as lookup functions as specialised built-in functions when such functions are common built-in spreadsheet functions. A candidate failing to utilise specialised built-in functions should be awarded a mark in the lower mark bands. 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.

Task c

The evidence presented often detailed the problems encountered by the candidate whilst developing the spreadsheet solution and how these were surmounted, allowing the candidate to access the marks for this task.

Task d

Testing the spreadsheet solution was carried out well by a small proportion of candidates. Such portfolios included clear evidence of planning the testing to be performed and addressed testing functionality with the use of normal, abnormal and boundary data. To be awarded a mark beyond Mark Band 1, candidates need to demonstrate that the solution meets the requirements of the design specification; in only some instances was there explicit evidence to support this.

Task e

The technical and user documentation produced need to be separate documents as they are for different readers; this was correctly presented by the majority of candidates. The technical documentation usually provided sufficient details to allow somebody to maintain or amend the spreadsheet structure. In a small number of cases the documentation provided would not allow this to happen.

Task f

A small number of candidates performed well in Mark Band 3 in this task. In many cases the evaluation was descriptive rather than critical, restricting marks that should have been awarded. Candidates that performed well ensured that the evaluation referred back to the initial requirements of the problem and, in order to access the higher mark bands, considered feedback from users and related the evaluation to the design specification.

G050 Interactive Multimedia Products

General Comments:

The vast majority of candidates used appropriate software for this unit. A small number of centres still need to give careful consideration to the software used to evidence this unit. Page 67 of the specification indicates the types of interaction that could be incorporated into the final product. Not all multimedia software will facilitate the majority of these. It was noticeable this series that more centres appeared to use more appropriate software for the production of the interactive multimedia product ie software that allowed the candidate the opportunity to incorporate a variety of interaction within the final product. 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.

Comments on Individual Questions:

Question No.

Task a

To access the higher marks in task a, candidates evaluated commercial multimedia products, rather than describe them; some teachers awarded Mark Band 3 for descriptions rather than evaluations. There must be a detailed explanation of how the product influenced the design of the solution that the candidates produce. A very small number of candidates evaluated web-based multimedia products rather than non web-based multimedia products, restricting the marks that could be achieved. Some candidates produced evaluations that were descriptive in nature rather than a critical analysis of the products; this restricted the marks awarded to a maximum of Mark Band 2. It is not necessary that the products evaluated are based on the same topic area as the product to be developed; the purpose of the evaluation is to consider layout and interaction, for example, and how these could be used, or not, in the candidate's solution.

Tasks b(i) and b(ii)

For task b(i) a few candidates produced plans for completely different products; the requirement is to produce different designs for the same product. Content must be considered as part of the plan to access higher marks; some plans seen in this series contained very little indication of content. Some candidates that had been awarded Mark Band 3 had produced sufficiently detailed designs, as required.

Task b(ii) 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. An analysis that was not critical in nature restricted marks awarded to a maximum of Mark Band 2.

Tasks c(i) and c(ii)

These require evidence of the use of a variety of ICT skills to produce a multimedia solution. The nature of these skills is identified on page 67 of the unit specification. Many candidates failed to identify how they had used their initiative to develop and extend their ICT skills to create a variety of elements to be used in the product. Candidates could annotate their evidence to explain how the skills have been used and how the skills are aiding the development of the

multimedia product. Task c(iii) required the candidate to bring together the various components into a complete solution. This is where the nature of the multimedia software may restrict the nature of the product developed. A few centres continue to allow candidates to create products that are mainly text and image based with little or no interaction.

Task d

The testing of the product was carried out to a high standard 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. In some instances candidates, and assessors, failed to notice that the product implemented was not the same as the produce designed.

Task e

This required candidates to incorporate installation instructions as part of the user guide for the product; the quality of evidence varied from centre to centre. Candidates are encouraged to incorporate images within their user guide in order to clarify the steps within it. The user guide needs to include details of the system specification for the product and details about how to install the product. Some candidates omitted to explain what the purpose of the multimedia product was.

Task f

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

G051 Publishing

General Comments:

It is important that candidates address all parts of the unit rather than concentrating on the production of the document; some candidates did not sufficiently document the processes involved. This resulted in the award of few marks for many of the tasks.

The quality of the publications produced varied. In many instances the quality of the publications produced was poor and these required further refinement before they could be presented to a client, let alone be circulated as a publication.

In some instances it was unclear if there was a client involved in the process; evidence produced by candidates without obvious input by a client often lacked coherence.

Comments on Individual Questions:

Question No.

Task a

The evidence of the meeting(s) with clients varied greatly in evidence presented for this task. Some candidates could not access real clients so the teacher, or other suitable person, acted as the client; this is acceptable. It is important that interim and final deadline dates are considered to move beyond Mark Band 1.

Tasks b(i), b(ii) and b(iii)

It is a requirement of Mark Band 3 in task b(i) that candidates explore different means of presenting the same information and use a comprehensive range of editing and manipulation tools. Some candidates were awarded marks in Mark Band 3 when there was no evidence to support this. Evidence for task b(ii) and task b(iii) sometimes showed clear evidence of the design stage processes. To access marks in Mark Band 2 in task b(ii) there must be explicit evidence to include the following:

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

For task b(iii) annotation of evidence generated enabled candidates to access Mark Band 2, whereas an accompanying explanation enabled candidates to access Mark Band 3. Many centres awarded marks based on the final product when the candidate had included little or no explanation of the design stages followed and how this enabled the production of the product. Production of the product does not imply any understanding of the process and overt evidence is required.

Tasks c(i) and c(ii)

Higher marks in task c(i) were awarded where clear evidence of using styles and attributes to produce a publishable version of the agreed design were included. The work of some candidates did not match the agreed design. Candidates are required to evidence editing a piece of imported text. This is best evidenced through careful annotation of the evidence as the evidence should be explicit rather than implicit. Candidates accessing the higher mark points sometimes demonstrated a clear understanding of the design stage processes. A small number of centres gave high marks in task c(i) when the candidate had made use of WordArt; at this level candidates should be using style sheets to control the appearance of the publication. Many candidates had made simple errors in their publications and these had not been identified by the assessor. For example, a contents page with page numbers for the sections of the document, yet the pages of the publication did not include page numbers or content of the publication was not displayed within the printable area of the publication. Other candidates did not appear to have considered implementing left-hand and right-hand master pages where appropriate.

The letter produced for task c(ii) lacked detail in the work of some candidates. The unit specification identifies the required content of the letter. Some candidates produced a manual outlining how to edit the document; this is not required.

Tasks d(i) and d(ii)

These tasks require analysis of the document and how the solution was refined to meet the client's needs as well as an analysis of the candidate's performance. Candidates in Mark Band 3 sometimes produced a critical analysis, as required. There will be an evaluation, not a description, of the candidate's role in the development of the solution for higher marks.

G052 Artwork and Imaging

General Comments:

The standard of evidence produced for this unit varied greatly. Some candidates produced high quality evidence clearly demonstrating the appropriate use of skills to produce artwork whilst other candidates appeared to have a limited appreciation of artwork and imaging and attempted to manipulate material through a trial and error approach using software facilities and tools.

Comments on Individual Questions:

Question No.

Task a

Some candidates produced a high quality portfolio of artwork as required for the higher marks in this task. Some candidates failed to include samples of artwork produced to cover the range listed on the assessment grid. Mark Band 3 was achieved in a number of portfolios where candidates explored the development of the materials using advanced editing and manipulation techniques. It should be noted that it is not necessary to provide step-by-step screenshots explaining how the original images were produced. The referencing for this task must relate solely to the portfolio of artwork and must not include reference to the product developed for the client.

Tasks b(i) to b(v)

Task b(i) was well evidenced by a small number of candidates where the sketches, in response to the client brief, were detailed and considered 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 b(ii) was difficult to achieve if task b(i) was poorly evidenced, as it was not easy to comment on the strengths and weakness of the designs. Mark Band 3 required a critical analysis and not just descriptive comments.

Task b(iii) requires candidates to show development of the product and the use of ICT tools, not just to present the final product. Some candidates produced high quality artwork with a clear explanation of the software features they were using and why they were using these features and how these features impacted upon the artwork. There were some instances where candidates appeared to have a limited understanding of the facilities to use within the artwork software and in some cases were attempting to produce final product material through a process of trial and error.

Task b(iv) requires explicit evidence that ICT skills have been developed; this was evidenced well by a small number of candidates. A diary can help to evidence this, or alternatively, annotated screenshots can provide evidence.

Evidence for task b(v) varied greatly as some candidates had not considered client feedback in order to access higher mark bands.

Task c

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

G053 Developing and Creating Websites

General Comments:

This unit remains the most popular unit in the A2 specification. There was evidence of some high quality websites that had been produced and in some cases these were supported by appropriate planning and implementation evidence.

Some high quality websites were produced for this unit.

Comments on Individual Questions:

Question No.

Task a

Candidates must explain through their research the reasons for choosing, or not choosing, features in web pages to be awarded Mark Band 2, a few did not. In order to access Mark Band 3, there must be a critical analysis of the web pages analysed; a number of candidates had achieved this. Frequently, the evidence provided was solely a description of the web pages visited, meeting Mark Band 1 requirements.

Tasks b(i) and b(ii)

Task b(i) 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. Only some candidates had sufficiently analysed the website to be produced.

Candidates were required to identify domain names suitable for the website for task b(ii) and, in order to access higher mark points, explain the reason for this name and provide alternative options. It was pleasing to see that a number of candidates had actually uploaded the site designed, although this is not necessary.

Task c(i) and c(ii)

In task c(i) many candidates had included appropriate interactivity in order to access the higher mark bands. A few candidates did not print the website but evidence could be seen in other tasks to establish what the website looked like.

To secure Mark Band 3 in task c(ii) a full explanation is required to explain the design techniques, hyperlinks, multimedia and interactive features used; a small number of candidates had evidenced this.

Task d

Evidence of understanding HTML script in task d was implicit in the work of some candidates rather than explicit. For Mark Band 2 candidates were required to edit script commands. Evidence to support this could include a before and after screenshot of the implications of the changes as well a narrative to describe the changes; this was provided by many candidates. Mark Band 3 requires evidence of adding script commands to include a comprehensive range of features including graphic, table and hyperlink, as mentioned in Mark Band 2. Evidence by some candidates for this task was poor. Screen shots should be large enough to be able to read the

before and after code and see the before and after features. A few candidates stated that they had used the web design software to add the components, rather than edit the HTML code, and yet were awarded a Mark Band 3 mark by the assessor. Other candidates added images with very precise dimensions with no explanation as to where these precise measurements came from. A small number of candidates concentrated on embedding scripting language code, such as JavaScript, rather than editing and adding HTML script. The use of JavaScript contributes to task c and not task d. This has been contained within reports for previous series, yet some centres have failed to address this issue.

Task e

Most candidates ensured that the website met the design specification; explicit evidence of this is required. It is useful if candidates include before and after screenshots if changes are required to the website as a result of testing.

Task f

This required candidates to produce a critical analysis of their website in order to gain higher marks. An analysis of the candidate's own performance was also required. In many cases the evidence was a description of what they had undertaken, rather than a critical analysis, meeting the requirements of Mark Band 2 rather than Mark Band 3.

H715 GCE Applied ICT (G055)

General Comments:

On average, the performance on the tasks was similar to performance on Section B but slightly weaker than performance on Section A. This might suggest that candidates have a reasonable grasp of the theoretical concepts but have struggled to apply their learning in a given context. This might be improved by extra exposure to case studies and real life examples.

Tasks

Tasks were often clearly labelled and were generally presented in a logical order.

Task 2

Candidates were given a table to complete and most submitted just the three types of software requested for inclusion in the table. Candidates scored well where they were able to relate the purpose of each type of software to its use on the OES network and so were able to identify a correct number of workstations and servers. Candidates often lost marks where they gave vague names to types of software, and where they failed to relate their answers to the OES case study giving, instead, generic definitions.

Most candidates evaluated methods used to complete Task 2. A good answer contained an identification and evaluation of one method used. Candidates who lost marks on this part did so because they evaluated their solution to the task, or their performance in completing it, rather than a method they chose to use and how effective that method was.

Task 3

This task was less well answered than Task 2. Candidates were able to identify network connection equipment and cabling requirements and some were able to identify data transfer speed requirements for these. Higher scoring answers included some identification of the effect of including slower devices on the speed of the network as a whole and were able to describe the devices. Candidates who scored in the lower mark band generally ignored the 1000Mbps data transfer speed and so missed the point of the question.

Comments on Individual Questions:

Question No. 1

This question was generally well answered with email being the most popular answer. Candidates gained marks where they were able to identify a facility such as email and to describe how this might be used to communicate data to a group of students (such as sending to a group, attaching files). Candidates often lost at least one mark where the answer was not related to OES or students/staff.

Question No. 2

Candidates gained marks where their answers were relevant to the simultaneous use of a broadband connection to the Internet and its services for a number of students. Candidates again lost marks where the answer was not related to OES, Internet use by students or the use of services related to interactive websites. Candidates were generally able to identify that broadband can offer higher speeds but were often not able to identify what this meant in terms of usability.

Question No. 3

This question was generally well answered. Candidates could generally gain a mark for each piece of software (PDF viewing software and web browsing software being the most popular) although there were incidences of reference to brand names rather than software types. Further marks were often not accessed as the answers did not relate to the use of this software for OES students.

Question No. 4

This question was generally poorly answered. Candidates were able to describe some benefits and limitations of star and tree topologies but not in relation to OES and their need to separate out the two functional areas of the organisation (staff network and student network).

- a) Candidates often confused the topology with the management of the network and gave benefits that were linked to finding problems, adding in new devices, etc. Answers were rarely linked to OES and benefits such as a connection failure being coped with by students moving to another computer which would be on the same star, or reduced costs for OES in terms of only one connection device being required.
- bi) Similarly the limitations of a tree topology were limited to reliance on one central connection device with little or no reference to the case study (e.g. students losing access to learning materials)
- bii) Candidates scored well on this question where they were able to identify that there are separate functions within the organisation (students and staff) and that separate segments would allow traffic to be kept separate.

Question No 5

This question was about the nature of the data on the web server and the security issues relating to that data.

- a) Answers were limited to viruses and hacking and often lacked relevance to the data on the web server, being general in nature.
- b) A good answer made reference to how user access could be controlled. Where candidates made reference to the protection of course data and policies relating to access to course data by students, full marks were accessed.

Question No. 6

This question was generally poorly answered. A good candidate was able to identify that the proxy server needs to sit between the network and the Internet. Some candidates confused a proxy server with a firewall or even anti-virus software.

Question No. 7

Common mistakes were to fail to make the point that network equipment would be stored in a separate room and so locks would be placed on this room particularly. A small number of candidates described data security rather than physical equipment security, maybe through not taking time to re-read and check the question. Answers generally lacked detail.

Question No. 8

Candidates who gained marks in the highest band were able to identify the impact of the issues they were discussing on OES as an organisation rather than simply describing the issues or relating them to students only. Candidates generally missed the opportunity to discuss the extra services that might be needed for students working remotely (e.g. discussion forums, video conferencing, commercial transactions).

Question No. 9

This question was particularly poorly answered. The most common answer was simply that IP addresses are unique. A good answer described the octets or address classes.

Question No. 10

This question was also very poorly answered. Very few candidates were able to identify a characteristic of either a switch or a router in order to identify a difference. A number of answers described the difference between a switch and a hub and answers often revealed a misunderstanding of the operation of both switches and routers.

Question No. 11

Many candidates were unable to specify accurately what an application server does. Those who did were often unable to give a reason why the function they had identified was needed (e.g. run applications on request so that less processing power and storage space is needed on the client).

Question No. 12

This question was answered well. Candidates were often able to identify three contents of a problem log and a good number were also able to describe recording and referencing as purposes. A few candidates described a communication log rather than a problem log.

Question No. 13

Most candidates were able to identify security and cost as problems but were often unable to discuss these in terms of the effects of these problems on an organisation. This question was generally well answered and reflected a good understanding of some of the security issues relating to networks.

G057 Database Design

General Comments:

This unit remains the most popular unit in the double award units.

Some high quality databases were designed and created.

Comments on Individual Questions:

Question No.

Task a

The design produced by candidates must be sufficiently detailed to allow a competent third party to implement the designs if Mark Band 3 marks are to be considered. Background information on advantages and disadvantages of relational databases is not required for this task.

Task b

In order to access mark points beyond Mark Band 1 in task b, candidates must produce a correct entity relationship diagram and, for Mark Band 3, define the data model clearly and show that it is correctly normalised to 3rd normal form (3NF). Some candidates provided clear details of the entities, attributes, keys, relationships and internally generated or processed data. Many candidates provided good evidence to explain how the model was normalised, although this varied from centre to centre.

Task c

The data input forms required evidence of data validation and should have been fully labelled in order to access Mark Band 2; this was evidenced by some candidates. The forms 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.

Task d

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, accessing Mark Band 3. In a small number of instances there was no evidence of the actual report, only the design of the report; this does not confirm that all data is fully displayed within the report. Some candidates had produced reports where data was not fully displayed and, either had not identified the error, or had not resolved the problem.

Task e

The database documentation must enable somebody else to maintain the database.

Task f

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. Some candidates included high quality testing evidence.

Task g

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.

G059 ICT Solutions for People with Individual Needs

General Comments:

Some good evidence was presented for this unit. The resources available to candidates varied greatly between centres. Some centres appeared to have access to specialist hardware and software for candidates to use and others focussed on customising the operating system and standard applications software, resulting in candidates having a limited appreciation of the solution produced. In a very small number of instances candidates presented solutions which were not ICT-related.

Comments on Individual Questions:

Question No.

Task a

A small number of the candidates had considered the implications of the legislation on the individual in each case study to secure Mark Band 3.

Task b

This was, on the whole, evidenced well by candidates although a small number of candidates did not evaluate the effectiveness of the recommended solution but had been awarded marks within Mark Band 3 by the centre.

Task c

This required candidates to produce an analysis of their solutions in order to gain marks in Mark Band 3. This was done well by a small number of candidates.

Task d

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

Tasks e(i) to e(iv)

The quality of evidence presented by some candidates was very good. Evidence requirements had been misinterpreted by a small number of centres. Some candidates presented evidence suggesting that limited customisation of the operating system, applications software and the hardware had been carried out. The task 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. Candidates with access to specialist hardware and software found this task to be much more accessible.

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