OCR
Oxford Cambridge and RSA

GCE

Applied ICT

Advanced GCE **AS H515/H715**

Advanced Subsidiary GCE **AS H115/H315**

OCR Report to Centres June 2015

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

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

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

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

OCR will not enter into any discussion or correspondence in connection with this report.

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OCR REPORT TO CENTRES

H115/315 GCE Applied ICT (AS units)

G040 Using ICT to Communicate

General Comments:

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

Assessors had generally provided detailed comments on the Unit Recording Sheets to explain their assessment decisions but page numbers to locate the evidence could have been more helpful in some cases.

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, so that 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 of task bii. 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 standard content such 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', which is on page 14 of the current version. The types of technologies they 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 6 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 continuing improvement in the performance of candidates on this paper when compared with previous examinations. In particular, there was an improvement in the answers given in Section A where candidates were required to evaluate and suggest improvements. Also, 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.

Comments on Individual Questions:

Question No. Task 2

Most candidates' work was word-processed, and the majority of candidates presented a full page flow diagram, clearly and unambiguously labelled.

The majority had clearly and correctly identified the four 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.

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. However, candidates must then ensure that their handwriting is legible. Completely hand drawn diagrams on A3 paper should not be necessary and should be discouraged.

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.

Accurate labelling should make it clear to a third party what information is being passed from the sender to the receiver; for example 'customer contact details' rather than just 'customer details'. The labels must identify the information, rather than describe a process; for example 'client brief', rather than 'create client brief'. Candidates should be encouraged to state the information and method precisely, rather than writing a sentence on each arrow, for example 'visit date and time – telephone' rather than 'The salesperson telephones the customer to offer them a date and time for the visit.'

Question No. Task 3

Due to the nature of the organisation and the task, most candidates used internet or text book research for this task. While they had clearly gained a lot of information about the advantages and disadvantages of CAD-CAM, many struggled to apply this to the case study.

Candidates who were able to access the highest mark band were those who recognised that the company already used CAD and that they produced bespoke designs so that the introduction of CAM would not necessarily provide benefits. They also discussed impacts on carpenters, fitters and designers, rather than simply referring to staff. These candidates produced well written reports that balanced the positive and negative impact on the company and its staff.

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 research job function, although some, incorrectly, gave a job title. Candidates need to be taught the difference between the two. Candidates were then required to identify two specific tasks carried out by this job function, such as 'look for different types of wood', rather than generic responsibilities such as 'looking for new and innovative ways to use wood and other materials'.

Question No. Q2

Candidates who were able supply specific details of the role of the Workshop Supervisor were able to achieve most or all of the marks for this question. Those who gave generic answers such as the Workshop Supervisor's responsibility for staff or who they reported to scored less well.

Question No. Q3(a)

Candidates were required to explain the purpose of the client brief. Most were able to state that it records the customer's requirements but fewer were able to provide an explanation. A description of the content of the brief based on the information given in Q3(b) was not acceptable.

Question No. Q3(b)

Most candidates scored well on this question, with many giving innovative answers for Specific design requirements. Only examples given in the case study were accepted for type of wood and type of finish, which proved an issue for some candidates.

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Question No. Q4(a)

Most candidates gained at least one mark for the method of inputting data, although fewer were able to match the data to the method chosen. Some candidates repeated the method described in the question. Candidates need to be taught that, when an example is given, they will not gain marks for repeating it in their answer. Candidates also needed to ensure that the data they identified was actually entered as part of the processing of an order, rather than another process, such as creating designs.

Question No. Q4(b)(i)

While many candidates gained both marks for this question, it was important that they actually described how the mileage was found, rather than just stating that the delivery cost is based on the distance from the factory to the customer's address. Most were able to state that the mileage was multiplied by £1.50, although sometimes this appeared as part of their answer to Q4(b)(ii), so could not be credited.

Question No. Q4(b)(ii)

Where candidates are asked to describe calculations, they must be precise and clear in their description. Where candidates had simply taken their answer from the case study, key elements in the calculation lacked the clarity required. For example, four quantities needed to be added together to find the total cost; price, VAT on price, delivery charge and VAT on delivery charge. In the case study, having described how each of these values was calculated, it states 'all of these values are added to give the total cost'. If candidates had copied this statement, to be awarded the mark, they needed to have referred to all four quantities within their order. Candidates need to be taught to identify the steps in the calculations described in the text and state these clearly.

Question No. Q4(c)(i)

Most candidates were able to identify an invoice as the output of the process.

Question No. Q4(c)(ii)

Where candidates had correctly identified an invoice, they almost invariably went on to gain both marks for this question also. It is worth noting that candidates could only be awarded marks for this question if Q4(c)(i) was answered correctly.

Question No. Q5

This question required candidates to read the question carefully to identify the system they were required to describe. Many candidates had done so and were able to gain a significant proportion of the marks available. However, this was not the case for all candidates. Where candidates had correctly identified the system, most were able to describe an example for each of hardware, software and input data. Candidates struggled more with examples of processing and output, which were often confused. This is an aspect that centres may need to focus on in their teaching.

Question No. Q6(a)

While many candidates were able to explain at least one weakness of the current stock control system and some were able to explain two weaknesses, others focussed incorrectly on the consequences of these weaknesses. Where candidates are asked to explain two factors, they need to ensure that they provide two distinct answers, preferably in the two numbered answer

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spaces. Marks can be lost when multiple answers are given as only the first two answers will be marked.

Question No. Q6(b)

Candidates who scored well in this question clearly identified specific equipment that would be required, such as barcode scanners or RFID readers and explained clearly when and how these would be used. Candidates who gave very generic answers that vaguely mentioned automated systems gained few, if any marks. This was another instance where candidates needed to have read the question carefully. This only required them to explain how the stock control system could be improved. There was no mention of ordering stock, so extending the system to allow automatic re-ordering was not required and did not gain credit.

Question No. Q7

This question asked candidates to discuss the **specific** benefits and limitations of Best of Wood introducing e-commerce, rather than generic benefits and limitations. Those candidates scoring well on this question recognised that, while the business might benefit from e-commerce when selling standard designs, e-commerce was probably not appropriate for the bespoke area of the business. Where candidates confined there discussion to generic benefits and limitations of e-commerce, they were restriction to a mark in the L band.

Question No. Q8

Most candidates were able to provide two items of information that would be included on a delivery form, although some answers were too vague, for example 'address' without any qualification, or were not an item of information, for example 'returns form'.

Question No. Q9(a)

To answer this question well, candidates needed to know the specific activities made illegal by the Computer Misuse Act and how these relate to hacking and spreading viruses. Some candidates were able to make this link and scored both marks. Most struggled with the concepts and resorted to re-wording the question or giving answers relating to the privacy of information. Candidates must understand that such legislation does not prevent or stop such activities but makes the illegal, which was the key word in answering this question.

Question No. Q9(b)

In contrast to Q9(a) most candidates were able to gain at least one mark for this question by recognising that these after often long distance crimes carried out by individuals that are good at covering their tracks, making it difficult to find the perpetrators or prove responsibility.

Question No. Q10

This question was answered quite well by many candidates although there were a few who were not familiar with what an HR department does and failed to gain marks. The few candidates who scored high marks gave a well-balanced description of all three main aspects of an HR departments role; recruitment, staff welfare and training. The majority were able to provide good descriptions of one or two aspects to gain a mark in the middle mark band.

Question No. Q11(a)

Most but not all candidates were able to identify two mobile devices and many described in general terms how these might be used but explanations of the benefits of this use in a business context were not often seen. There was a tendency for candidates to treat this question as part

of Section A, so there was often mention of client briefs and designs. Whilst this was not penalised, candidates should be reminded that the questions in Section B of the paper do not relate to the cases study and that they should approach their answers from a more general perspective.

Question No. Q11(b)

Candidates need to read the question carefully to identify who the disadvantage is to – in this case the sales representative. Also, if asked to explain a disadvantages, they need to state what the disadvantage is and then expand on their answer to explain how or why it is a disadvantage to the sales representative, Most candidates were able to state a disadvantage, such as loss of power, but were unable to expand on this to gain the second mark.

G042 ICT Solutions for Individuals and Society

General Comments:

Most of the work seen was appropriate and accurately assessed but there was evidence of 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 ensure that the screen prints are crisp and clear.

Assessors had mostly provided detailed comments to explain their assessment decisions but page numbers often referred to whole tasks, rather than specific pages where evidence could be found.

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

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 on page 155 of 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. Centres might consider sending electronic copies of the candidates' spreadsheets so that the Moderator can get a better overview of their design.

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 too 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 a 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 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 that 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 on page 37 of 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 on page 37 of 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 on pages 45-46 of 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.

H515/715 GCE Applied ICT (A2 units)

G048 Working to a Brief

General Comments:

The overall performance in this session was broadly in line with that of the recent sessions. Also, as with recent sessions, the majority of candidates either completed the Multimedia or Web creation tasks, with very few candidates electing to complete the Spreadsheet creation task.

Comments on Individual Questions:

Task A: The vast majority of candidates presented reports that were of MB2 standard. Broadly, these focussed on the content required for each of the set tasks, as opposed to the function of that content. In a relatively few cases, candidates had focussed on a wide range of issues and were correctly awarded MB3 for this task. However, it still remains the case that many centres underestimate the detail required for MB3 to be awarded.

Task B: As is typically the case, many candidates used two formal planning techniques in preparation for their selected task. In many cases, these plans were in good depth and justified the MB2 mark awarded. However, centres are still underestimating the detail required for MB3 to be awarded and are awarding full marks for plans that do not cover all aspects of the task.

The majority of candidates planned the creation of the product, however, in a minority of cases, candidates have planned the whole of unit G048 and so have included a good deal of irrelevant information, for which marks may not be awarded.

Task C(i): The overall quality of the diary tasks has greatly improved over the past few sessions and this improvement was maintained this year. Candidates have chosen many different formats for the diary, with some creating one overall diary, whilst others have created separate dairies that covered each of tasks C(i), (ii) and (iii). The choice of format is for the individual candidate to make and there is no inherent link between the choice of format and the marks available.

In order for candidates to be awarded MB3 for task C(i), there must be clear evidence of individual initiative taken in the process of improving the skills and understanding required to complete the chosen task. Many candidates produced such evidence and were awarded accordingly.

For Task C(ii), candidates need to show the use of formal and informal techniques in creating their solutions. This task is generally well completed and many candidates were correctly awarded marks from MB3.

Task C(iii) is differentiated by the nature of the evidence produced. In order to qualify for MB2, candidates need to justify the actions they have taken in order to deal with any issues they have faced, whilst for MB3 to be awarded, candidates need to provide clear evidence that they have taken action to avoid such issues repeating.

The overall quality of the reports produced for this task was of low MB2 standard. This is similar to the quality of work produced for other recent sessions. However, also similarly to previous sessions, the marks awarded by centres were not always justified by the work submitted.

Task D allowed candidates to produce some high quality support materials. There was clear ability to combine the knowledge gained in this and other units and this resulted in some very high marks being awarded. However, centres are reminded that candidates should produce support materials for the end user. This therefore excludes technical documents for this task.

Tasks E and F are marked to the same general criteria, albeit with different foci. Many candidates created focussed documents that covered planning and creation in some depth. However, of the two tasks, task F was more successful. This is generally because the reports for task E focussed on the use of formal planning techniques, rather than on issues such as how individual tasks, timings and order were identified.

Many candidates created clear and well focussed reports for task G. As with task C(iii), the criteria for this task are clear and many candidates made good use of the feedback of others as the sole source of opinion about the quality of their solution. Where candidates solely used the views of others as the foundation of their analysis of their work, MB3 was a valid mark band. Many centres are fully aware of the requirements of this task and mark the task with a high degree of accuracy.

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 sessions. The problem that the candidates attempted to solve in the vast majority of cases provided the opportunity for significant numerical processing using numerical modelling.

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 on page 61 of 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. 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 overcome, 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. Some candidates continue to refer to formulas within the user guide when such information is not relevant to the end user.

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. Centres generally made use of appropriate software to evidence this unit. 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 incorrectly 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. 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) content must be considered as part of the plan to access higher marks; some plans seen in this session contained very little indication of content. 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. The user guide needs to include details of the system specification for the product and details about how to install the product, as well as explaining 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:

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 Assessor, 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 housestyle;
- 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. 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 images were pixelated. 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 includes 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.

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 required experience of working with computer artwork 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 portfolio 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.

Comments on Individual Questions:

Task a

Candidates must explain the reasons for choosing, or not choosing, features in web pages examined 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 examined; 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. The plans produced should be sufficiently detailed to secure a mark in mark band 3; this includes full details of the content of the website, including the text to be included.

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.

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 added images, for example, with very precise dimensions with no explanation as to where these precise measurements came from, suggesting that the software had been used to add such components

rather than adding the components by adding the HTML code. 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.

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.

G055 Networking Solutions

General Comments:

Candidate scripts represented a good range of response to the materials. Candidates had engaged well with the case study in order to complete Task 2, creating what was often a clear and accurate diagram. However, Task 3 and answers to Section A questions often neglected to refer to the case study material. Answers were general rather than applied. The technical nature of candidates' responses was variable and centres should aim to prepare candidates by ensuring that they understand technical concepts and their application. Tasks were well signposted and almost all students had completed all parts of both tasks.

2a.   Comments on pre-release tasks

Task 2 was completed well. Most candidates produced relevant diagrams with fully connected star networks and a clear connection to the internet. Diagrams were, on the whole, clearly labelled and easy to interpret. However, a clear majority of candidates failed to use all the information in the case study, missing out FTP, VPN and mail servers.

A number of candidates are still misinterpreting the evaluation task and evaluate the outcome rather than the methods.

In response to Task 3, candidates were able to describe some of the steps required to set up an internet connection to an ISP. Again, however, little reference was made to the case study, especially the need for FTP software for file transfer from remote agents' computers. Consequently, most students scored in the lower mark band.

Section A questions were, more often than not, answered with little or no reference to the case study. Good answers would make some connection between the answer to the question and the context of the case study. Full marks were often not awarded due to a lack of connection.

This paper assesses the candidate's knowledge of networking solutions and good answer will be written from the perspective of the network or network manager, rather than from the user's perspective, and will demonstrate an element of technical understanding.

2b.   Comments on Individual Questions:

Question No. 1

This question was about WAN services accessed from a variety of locations. Good answers referred to email, tele/video conferencing and VPN and generally made reference to the case study.

Candidates were often able to describe centralised management and sometimes referred to back up and security updates. Too often, the answer referred to what the user might do rather than how the network might be managed.

Question No. 2

Most candidates were able to identify the potential loss of security and some were able to identify that data might be intercepted. A good answer, of which a few were seen, referred to the confidentiality of the data that agents would be transmitting.

Answers to this question should have been technical in nature and a good answer would include secure tunnels and encryption. Many answers lacked any technical detail with candidates unable to identify why the VPN connection was secure.

Question No. 3

Although many candidates were able to identify that all nodes may be connected to all nodes, there was often no connection made between this and network speed. A good answer would make the link.

Most candidates were able to identify the two disadvantages listed in the mark scheme. Few, however, linked the disadvantages to the case study. Few referred to the small size of the company and the network and the justification of cost.

Question No. 4

Part (a) of this question required close reference to the case study for access to all available marks. Candidates were often able to cite principles of the data protection act but often did not make the connection with remote access or with data being potentially duplicated on mobile devices.

Answers to part (b) were often not very specific, again not referring to the case study.

This question was often poorly answered.

Question No. 5

This question was poorly answered. Many candidates were unable to identify a wireless connection device and those that did identify a correct device often were unable to identify differences between the types of wireless connection device that could have been chosen. Some candidates did not interpret the question correctly and identified laptops or wireless network cards.   An understanding of the difference between a connecting device and a device that connects to a network was fundamental to the correct answering of this question.

Question No. 6

Candidates were often able to identify a range of different broadband types but were often unable to relate the features of each type of broadband to the needs of ORA.   Candidates did not often give mobile broadband as an answer, which would have tied most closely with the case study. Consequently, most answers were awarded marks in the lower mark band due to lack of application to the case study.

Question No. 7

The most common answer to part (a) was 'a set of rules'. A minority of candidates were able to articulate the protocol's role in defining how things are done, rather than just used for communication.

HTTP was the most commonly identified protocol although high scoring answers were generally descriptions of FTP or TCP.

Question No. 8

A good number of candidates were able to identify that a gateway sits between two different types of network but many were unable to describe the role of the gateway itself in converting between the different protocols.

Question No. 9

Most candidates were able to identify the recording of transactions as a purpose of the communications log. Popular answers then referred to the use of communications logs for identifying problems and the transactions related to those problems.

Question No. 10

Candidates were often able to identify the need to organise cables to reduce the risk of tripping and all issues on the mark scheme were covered in the answers of the whole cohort. This question was, however, not well answered. Many candidates identified only a limited range of issues (cables and adjustable chairs being the most common) and had only really given a description of the issue. Very few candidates had considered the consequences of not considering the issues they identified.

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