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RECOGNISING ACHIEVEMENT

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Advanced GCE **A2 7838**

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Reports for the Components

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Advanced GCE Information and Communication Technology (7838)

Advanced Subsidiary GCE Information and Communication Technology (3838)

REPORTS ON THE UNITS

Chief Examiner's Report

As in previous years the candidates are performing well in the two practical units. Candidates should be congratulated on producing some very good, thoughtful and beautifully presented portfolios. However the theoretical units continue to produce poor results with a low average mark. One reason appears to be that the candidates often have no thorough knowledge of the definitions of the terms used. Because of this lack of basic knowledge the candidate may often misinterpret the question and gain a low score. Another reason is a failure to produce answers which are relevant to the scenarios presented in many questions. Finally, the discussion questions in 2512 and 2517 are being badly answered in almost every case, with the candidates failing to gain marks in the middle or upper band because of a failure to expand on points they are making. Candidates must be encouraged to explore the consequences of the points they are making. Instead of making a large number of points a candidate would do better to take two or three points and expand those points, looking for the consequences and effects within the given scenario.

2512 Information, Systems and Communications

General Comments

The overall performance of the candidates seems the same as in previous examinations. Most candidates were appropriately prepared for this examination. It was evident that some candidates had learnt sections of the theory by heart but had not learnt to apply this knowledge. Repeating mark schemes from previous papers will not enable the candidates to score highly. The skill is in reading the question, understanding and applying their knowledge. It was disappointing that teachers and candidates had not taken on board comments from previous reports. It is essential the candidates are given access to the reports and read them in conjunction with the exam paper so that similar mistakes are not made session on session.

As with previous sessions, the use of requisite language was well documented yet the more technical aspects of the specification, such as networking and databases and the legal aspects were not particularly well known.

Clearly some topics are not being covered adequately by centres. Evidence of having been instructed on the interpretation of keywords was not always to be found in the answers.

Comment on Individual Questions

Question 1

(a) Generally well answered with many candidates scoring full marks.

(b) The identification of the method was, for the most part, completed very well. Unfortunately for those that incorrectly answered the question it was apparent that they were unaware of the meaning of the terms, even though they are lifted directly from the specification.

(c) There is still some confusion over these terms – a number of candidates knew what they stood for but confused them, losing both marks.

Question 2

(a) (i) There is still confusion over the difference between validation and verification. At this level of the qualification it is expected that candidates understand the difference.

     (ii) Many candidates repeated their answer from (i) without expanding it to give the answer to the question.

(b) (i) This was very well answered with many candidates scoring full marks.

     (ii) For what is a simple learnt response, the candidates did not perform well on this question. Many neglected to include all the stages listed in the question whilst others did not include the flow of data within the stages. Unless candidates can achieve full marks on these regurgitated responses, they will not achieve high marks on the paper.

Question 3

Repetition of the question does not gain marks. Many candidates made one point and then filled up the space by rewriting the same response in different ways. Explain requires a higher level response that was sadly lacking from most candidates.

Question 4

(a)   Once again the question from the area of the specification which covers technical elements was poorly done. The identification of the upgrade was not done in enough detail to be able to be carried out and the reasoning behind the upgrade did not usually go further than making the computer faster. There was very little understanding of how the upgrade affected performance.

(b)   This was very well answered with many candidates scoring full marks.

(c)   (i)   Many candidates chose to give characteristics or reasons for using back-up and archive without actually answering the question. It appears that they latched onto the factual keyword in the question and used this as a trigger to write everything they know about the topic. Some were lucky enough to achieve the marks.

(ii)   This was very well answered.

Question 5

(a)   Both (i) and (ii) were poorly answered with candidates having a weak understanding of different types of operating systems.

(b)   Both (i) and (ii) were answered by most candidates from general knowledge. As an ICT exam at AS Level there is expected to be an understanding of technical terms and for the candidates to respond using language and descriptions appropriate to having completed time studying the subject. Many candidates for (i) merely stated a language that the interface was in, whilst (ii), as a feature that candidates use every time they sit at a computer, was poorly described.

(c)   Where candidates avoided the use of proprietary software packages, this was very well answered.

Question 6

(a)   The identification of the data type for telephone number has become a regular on this paper. The expectation, especially as it is also part of the 2513 is that candidates will know that it is not a number. Unfortunately this is not the case. Hopefully, the next time it appears the responses will be better.

(b)   Generally this was very well answered, although some leeway was given with regard to the spelling.

(c)   The question asked for the difference between the modes. Frequently candidates answered this without informing the examiner of which mode they were talking about and lost marks. Overall, this was successfully answered.

(d)   This is a technical element of the specification, and once again, in line with expectations, it was poorly answered. Candidates failed to read the question and their knowledge of indexed sequential was lamentable.

Question 7

(a) Repetition of the word Local does not imply that the candidate knows what they are talking about. It was unfortunate that many candidates were unable to pick up both marks on this learnt aspect of the specification.

(b) This was very well answered with the majority of candidates achieving the mark.

(c) Answers to this question were centre based – candidates either knew the answer or they did not. Those that understood that they needed to give a response that included more than input of analogue and output of digital gained high marks.

(d) Bandwidth is not speed, it is not how fast data goes, it is not how much data can be sent or received. There must be an indication of volume and time.

Question 8

(a) The focus of the question was on advantages to the user. Very few candidates picked up on this and gave generic advantages of networking the computers, thus losing marks. A relatively straightforward question was complicated by candidates giving rote learnt answers.

(b) The number of candidates who gave answers involving the use of a manual bulletin board was worrying. Many responses to this question were general knowledge and failed to move beyond superficial lists. Explanations require higher order answers which were lacking from the majority of candidates.

Question 9

(a) Many candidates are still confused by the different legal aspects. Many gave elements of other legal areas of ICT or parts of the DPA that were not principles.

(b) The identification of the solutions was very poor – candidates are still not quantifying regular breaks and many were unaware of carpal tunnel syndrome.

(c) The question asked for statements in the code of conduct – many candidates gave general philosophies of behaviour instead. Those that took the time to think about the question gave reasonable responses.

Question 10

In the last report it was written that:

"This type of question is now common as the final question on the paper. It was hoped that over time candidates would understand the requirements of a discuss essay however this has not proved to be so. Whilst most candidates realise that 'discuss' questions necessitate two viewpoints, nearly all responses were a succession of identified impacts. Few candidates were able to expand upon these impacts and develop an answer that included a progressive explanation of just why they were advantageous or disadvantageous to the individuals in question.

A large proportion of candidates focused on the portable technology devices and did little more than list the advantages and disadvantages of those devices rather than focus on the impact on the individual. Few candidates went further than always in contact or can always communicate – neither of which gains high marks.

Discussions with very little substance left no reference material upon which to base a satisfactory conclusion. The resultant weak ending was, too often, not worthy of an award."

There has been no discernable change in the responses from the candidates and the above comments still apply.

2513 − Structured Practical ICT Tasks

General Comments

Presentation of work by Centres has continued to improve even further this year with hardly any centres sending work in ring binders. The use of plastic wallets is reducing further still and is much appreciated. Most centres are now encouraging candidates to put task numbers on each page and this helps a lot. The quality of work from candidates is still improving significantly and this is clearly due to improved teaching standards, training from OCR, more specialist teachers and most importantly increased ICT skills of students. There were some excellent sets of tasks submitted by many centres and the quality of work produced by candidates showed that they had pride in their work as well as having learned some very good ICT skills – including the less obvious skills of documentation and testing.

As last year, the vast majority of Centres used the official cover sheets and official mark schemes which helped the moderation process immensely. The use of annotation by most Centres helped to identify where marks had / had not been awarded – in particular the use of numbering of mark points on the mark scheme assisted moderators in this process. Where annotation was not included, the moderation process proved to be very difficult. In general, centres who don't annotate do tend to have marks adjusted more than those who do annotate. This is usually due to incorrect interpretation of the mark scheme and insufficient evidence of marks being justifiably awarded. Some centres have been reminded in their reports to use the official cover sheets and mark schemes and some were required to re-mark their candidates' work if these were not used.

Clerical errors are still a problem. It is extremely important that Centres ensure the marks on the MS1 match those on the Cover Sheet and that those on the Cover Sheet are added up accurately on both sides and match those on the Mark Scheme. It is essential that Centres get this right as it is their responsibility to ensure the marks given to OCR are accurate. If changes are made to marks then they should be applied to all paperwork. Over 30% of centres had clerical errors of some kind which causes a lot of extra administration.

Centres are reminded to read the explanatory notes in the mark scheme as these give a lot of detailed advice on how to mark the tasks.

It was usually clear which centres were experienced at delivering this course and which centres would benefit from training. This was also reflected in the quality of the work produced by candidates. Centres doing this course for the first time should note that students are not required to annotate and explain every aspect of their work – only what is asked for in the mark scheme. This should help candidates to achieve a better work-life balance and provide time to focus on preparation for the examined units.

It is always pleasing to see the high quality of work and attention to detail that most candidates provide. However, centres must be very careful to get the balance right between what is acceptable guidance and what is unacceptable "walking candidates through the tasks step by step". The best way to achieve this balance is to teach the skills required in a different context and then let students apply the skills to the context of the structured tasks.

Most centres next year will be submitted structured tasks using G062 as part of the new ICT AS Level. The marks for G062 will be out of 80 rather than 120 which should mean a little less work for candidates and therefore more time should be spent focussing on the theoretical study for G061 which is worth 60% of the final grade and therefore requires more attention.

Comments on Individual Tasks

Task 1

(a) (i) Virtually all candidates were able to complete this introductory question.

(ii) Whilst most candidates included screenshot evidence of sharpening the image, a few would have gained both marks if they had included the description asked for.

(iii) The answers given for this question tended to vary by centre rather than by candidate suggesting the method of teaching used by some centres was correct, but not by all centres. Filling the yellow and red areas with white colour did not achieve the required effect. The image actually needed cropping (or similar) to <u>remove</u> the areas. This will then allow the logo to be used in other documents and text will wrap around it effectively.

(iv) Lots of different methods were used to achieve transparency, particularly as different software packages were used by different centres. Some students achieved the transparency as part of iii as they removed the coloured areas between the spokes using a tool that fully removed them and made them transparent. Whilst this was time consuming, it did achieve the desired effect. The simplest method was to set the background colour (white by this stage) to be transparent.

(b) (i) Candidates produced good quality templates in general. Accuracy is a very important skill in ICT and where there are four easy marks provided for copying out information, then that accuracy will be tested stringently. Therefore, the apostrophe in "Glen's Wheels" is not an option, but a requirement for the mark.

(ii) Most candidates were able to show how they had used a header and a footer, but some needed to ensure there was enough evidence that it was more than just the top or bottom of the page.

(iii) Virtually all candidates used the method of File, Save As, and then changed the file type to template.

(c) (i) Whilst most candidates corrected the spelling (probably using the spell checker), in order to get the mark, it was necessary to label each of the three changes as required by the question. A minority of candidates only corrected one spelling. Whilst questions like this targeted at U and E grade candidates may seem simple, it is necessary to read the question carefully to ensure the marks can be awarded. The purpose of the labelling is for the candidate to show they have thoughtfully made the change.

(d) (i) Most candidates were able to show how the letter was linked to the data source.

(ii) Candidates who used the merge field codes correctly, were awarded these marks. However, many tried to use 'Address Block' and 'Greeting Line'. These are too simplistic and don't always provide the correct results as the procedure make assumptions. Therefore, some marks of centres had to be changed here if there was no subsequent evidence that the 'Address Block' and 'Greeting Line' provided the results asked for in the mark scheme.

(iii)   This question was intended to be more challenging. It differentiated candidates based upon whether they could work out the correct operator to use and the correct dates to use. It did need to be precise and some centres need to be careful to follow the instructions in the mark scheme carefully.

(e)   If candidates did (d) (iii) correctly, then they usually got the marks for (e). It was concerning where candidates couldn't do (or got wrong) (d) (iii) yet they still managed to get the three candidates asked for – this could be indicative of plagiarism and centres should watch out for this.

(f)   (i)   Most candidates were able to insert a variable date field, but it must be set to automatically update. If using Insert, Date and Time, then candidates must select the tick box "Update automatically" as otherwise the date is only correct the first time the letter is used.

    (ii)   Higher ability candidates attempted this question and tended to meet the requirements. Lower ability candidates sensibly chose to omit this and focus on other tasks.

(g)   Documentation questions are always good differentiators as candidates have to think carefully about what is required within documentation and ensure the instructions are sufficient. There are now very few centres where candidates show the user how to re-create the system from scratch, although this is still evident in a few centres where training is required. Whilst most candidates were able to show how to run the mail merge, some needed to explain how to change the criteria in order to get mark 28. For printing the letters, a lot of candidates simply described "File Print", rather than the Print Merge option. File, Print, only prints the current record.

Task 2

(a)   (i)   This question was well answered by most candidates. Differentiating mark points were for the help page and the Bicycle Association link.

    (ii)   The design specification marks tended to be done well by some centres, but not others which showed that some centres had taught design specifications very well – particularly mark points 16-18.

(b)   (i)   Most candidates followed their design and met marking points 19-21. Care needs to be taken to ensure that all pictures of the types of bikes asked for are included and that the routes are within the Kent area if a town is specified. There should also be 4 routes which can be achieved in many ways (eg 4 separate downloads, one document containing 4 routes etc)

    (ii)   Most candidates are now using relative hyperlinks. However, some software tools do not provide this evidence and it is essential that the evidence is provided. One piece of software suggests that it may be relative but when other evidence is looked at such as HTML code, it is clear that the links are not relative. Therefore the software is either inappropriate or it needs further work to obtain a relative link. For the hyperlink to www.ba-gb.com, it was also acceptable to allow www.ba-gb.co.uk as this goes to the same place.

(iii)   Most candidates used suitable page names but the use of folders varied. The requirements of the question asked for files (which includes image files) to be in a folder for each page. Using a sub-folder of "Images" within the page folder is acceptable, but to put all the pictures into a single folder did not meet the requirements.

Task 3

Many centres still have great difficulty marking this and differentiating between good and poor tests. Good tests are those which have specific input values (eg "Jane") identified and the location where that should be input (eg Question 1 answer). Expected output should also be specific values. Many candidates used inputs like "4 correct answers and 6 incorrect answers" – a tester would not know what was correct and what was incorrect or which rows to put each on – therefore the test plan would be insufficient. Centres are encouraged to attend training where a number of examples of acceptable and unacceptable testing are given.

(a)   (i)   A design layout was produced for this question with quite clear descriptions of what must be done. An ICT skill is to develop a design as specified and therefore if candidates choose their own layouts or highlight more than the areas highlighted (eg by highlighting input titles) then they are not following the design. Marks for 2-4 varied depending on the ability of candidates.

(ii)   Mark point 5 (profit) was achieved by most candidates. Mark point 6 was a good differentiator amongst candidates of differing abilities. Mark point 7 tended to be completed by candidates and some used rather simplistic methods which actually worked, but did not allow the achievement of mark point 8 which required the function to have been replicated. The use of named cell ranges is acceptable as an absolute cell reference, but only if there is some annotation to show where the named cell range is or some evidence of the named cell range.

(iii)   Responses to this question varied. Candidates needed to be careful to use <= rather than just < and to compare with a cell reference rather than a fixed value.

(b)   (i)   Whilst many centres are getting better at marking this, some centres still have great difficulty marking this and differentiating between good and poor tests. Good tests are those which have specific input values (eg "£10") identified and the location where that should be input (eg "for mountain bike in cost of bike hire table"). Expected output should also be specific values. Some candidates used inputs like "quantities that add up to 500" – a tester would not know what quantities to use – therefore the test plan would be insufficient. Centres are encouraged to attend training where a number of examples of acceptable and unacceptable testing are given.

(ii)   Similar comments for the invalid test plan apply as to (b) (i). Expected output values should be clear error messages. Some benefit of doubt was allowed where inputs depended upon another input being identified but wasn't. Whilst this is not idea, it was decided to allow the assumption of values shown in fig 3.1 where they were not clearly identified by candidates.

(c)   Documentation is a good differentiation question and this proved to be the case more so with this question. Most candidates provided contents and overviews but the overview must relate to the question. Answers like "This documentation will show you how to use a spreadsheet . . . . ." without mentioning the profit calculator are too vague. Centres are now teaching candidates the importance of opening the existing file and precisely how to find it as a pre-requisite of any further tasks.

9

Candidates needed to give clear descriptions for 22-24 as they were simple tasks and therefore instructions like "Change the data" are too vague, but "click on the cell that contains the quantity booked that you want to change . . . press the delete key . . . etc" are much better.

Task 4

(a) This question was a good differentiator. Primary keys needed to be identified clearly by candidates. Most candidates were able to identify the contact number as a text data type. Candidates who had read the question properly realised that validation for the status field was necessary. For mark points 4, 7 and 9, moderators allowed spaces as this was requested by many centres.

(b) This caused some surprises in that it differentiated better than was expected. Most candidates got the Managers column correct but very few got the Intermediate column correct. Centres do need to be careful about plagiarism in questions like this and ensure candidates are producing their own answers – especially where exactly the same wrong answers are given by several candidates.

(c) (i) This was straight forward, but when assessing this type of question, centres must ensure the degree of the relationship is shown.

(ii) This question differentiated some candidates quite well. It certainly showed which candidates understood the data structure and the process of normalisation and which candidates did not understand the data. Most candidates changed the category descriptions in the BIKE table to the category descriptions successfully. Some candidates added in customer IDs to the booking table, but forgot to remove the names which meant that duplicate data remained. Some candidates put in 1,2,3,4,5,6 for the customer IDs in the booking table, but this bore no relation to the foreign data and therefore integrity of the data was lost.

(d) Most candidates were able to answer this question successfully – the caution is to read the question carefully as only INVALID data was required.

(e) (i) Most candidates got between 2 and 4 marks in this section. Some candidates produced the main form but no sub-form which was a sensible attempt at getting some marks. Whilst aesthetics were not marked, the sub-forms would have been better if they were produced in tabular format rather than as one form after another.

(ii) Very few candidates got both marks. Most candidates only included forename and surname but forgot that many customers may have the same surname and forename. Therefore, whilst it wasn't specifically asked for in the question, the A grade candidates should be capable of thinking about the fact that an ID or Post Code or similar is required. Candidates who had done all of (e) (i) tended to get mark point 26 although some candidates missed out some of the fields.

(iii) Most candidates were able to complete this question if they had done (e) (i) although many needed to use <= instead of <

(iv) This question was completed well by candidates who had got this far. However, many candidates were using non-sensible text box labels such as "Text56" which made the formulae difficult to confirm. As this is the first time this type of question has been tested, a lot of benefit of doubt was given and the moderators just looked

for the correct pattern in the calculation – however, centres should be aware that in future years, sensible labels may be a requirement of the task and/or the mark scheme.

(f)   Separating out the testing question from the test plan question made marking and moderating the work of candidates far more straight forward. Candidates who had completed (e) successfully tended to complete (f). Candidates should remember to label ALL input and output values from the test plan on the test runs very clearly. This question was an opportunity for candidates to test that their solutions produced in (e) worked and so gain 3 marks if their solutions did work. It also provided an opportunity to make corrections to (e).

2514 Practical Applications of ICT Using Standard/Generic Applications Software

General Comments

This is a scenario-based paper and as such candidates should give examples, when asked for, in the context of the scenario. In some cases it was evident that the candidates had some knowledge but were unable to apply this knowledge to the context of the questions. Failure to do this leads to candidates failing to be awarded marks for examples. Some candidates are still using terms such as 'professional' without any explanation or qualification in an attempt to cover any aspect of using ICT correctly.

The examination technique of many candidates hindered their ability to score marks – centres must practice examination technique and assist the candidates to understand what is required by the command words such as discuss, explain, describe, state, how and so on.

There appears to be a general lack of knowledge of technical terminology relating to applications. There is no doubt that candidates are able to manipulate applications in a practical manner but are unable to apply their practical skills in a theoretical situation.

It is important that all areas of the specification are covered to ensure that candidates have a wide range of knowledge.

Comments on Individual Questions

1 (a) Few candidates gained full marks for the question. Many answers made reference to the use of style sheets, templates, graphic manipulation, text and font styles/sizes, headers and footers, ease of use. Many candidates who used mail merge as an answer failed to mention that it is used to 'select' customers or to personalise documents.
Candidates often gave more complex irrelevant answers to the question than what was required to meet the marking criteria.

(b) This question was relatively well answered with most candidates making reference to layout, formats, text styles / sizes /colours, or positioning items in headers & footers. Some candidates gave answers which described 'layering'.

2 (a) Generally this was well answered, with many candidates gaining more than half marks.

(b) Few candidates gained full marks for this question. Many gave a full description of 'FILL', but the terms 'SOFTEN' and 'SHARPEN' drew many vague responses from the candidates which often failed to meet the marking criteria. Some candidates used the words "soften"/"sharpen" in their description rather than thinking of alternative words to explain it. They need to be able to correctly describe standard terminology at this level of study.

(c) This question was relatively well answered with most candidates making reference to moving or resizing. A lot of candidates grouped the text and image together and dealt with them as one unit.

(d)   Few candidates gained full marks for this question. Many gave answers which referred to file size, storage space, pixels, comparing vectors and bitmaps, or made vague responses which often failed to meet the marking criteria. This type of question has appeared on previous examination papers.

3   (a)   Generally this was well answered, with many candidates gaining more than half marks. However, in some cases it was apparent that candidates did not fully understand the concept of using OHT's for a presentation.

Most candidates gained full marks for describing the advantages of using presentation software, probably as a result of their familiarity with using it.

(b)   Most candidates gained high marks for this question. This type of question has appeared on previous examination papers.

(c)   This question was relatively well answered although some candidates struggled to express their point clearly and often repeated the same point using different terminology.

4   (a)   This question was generally poorly answered. Few candidates understood what this question was asking of them and this was evident from the standard of the written response. Almost without fail every example for a macro mentioned that it could only be used to print the spreadsheet.
Many candidates failed to gain the first marking point and for many there appeared to be a lack of understanding in relation to the question.

(b)   Candidates who failed to understand the concept of the previous question also failed to gain the marks in this question. This type of question has appeared on previous examination papers and the use of 'form controls' should be something that the candidates are familiar with at this level of study.

(c)   Many candidates struggled to describe the terms 'ROW','COLUMN' and 'WORKSHEET' using the correct terminology. The examples used were often too vague to gain the marking point.

5   (a)   Few candidates gained full marks for this question. Many gained some marks for mentioning that dynamic data could be changed / updated and would be up-to-date. Candidates often repeated the same points using different phrases and few recognised the principal of being able to see the final order cost.

(b)   This question was relatively well answered although some candidates gave answers which were more appropriate to section (i) in section (ii) and vice versa. Some candidates repeated the same point using different words.

(c)   Many candidates gained full marks for this question.

6   (a)   Few candidates gained full marks for this question. Many gained some marks for mentioning the use of queries or reports. Few candidates gave detailed examples of how queries or reports could be used in this scenario. Many candidates made references to the functions of a database like linking tables, referential integrity, primary and foreign keys.

(b)   This question was relatively well answered and many candidates were able to gain at least half the marks. Some candidates were not able to express their understanding of these terms using the terminology correctly.

(c)   Many candidates gained full marks for this question although some candidates failed to correctly use the underscore which was required in the answer (e.g. STOCK_ID). Also, it was evident that some candidates did not understand the meaning of relationships in a database.

2515 Communications Technology and its Application

General Comments

The overall performance of the candidates seems about the same as in previous examinations. On the whole, most candidates seemed appropriately prepared for this paper.

For the less able candidates, difficulties arose when the use of requisite language was required. The technical aspects of the specification were known by a significant number of candidates and this was reflected in their marks. The terms clearly appear in the specification and centres should ensure that candidates are familiar with them and are able to use them appropriately.

Those candidates who wrote nothing on questions seem to have all but disappeared. However, a significant number frequently ignored, or misread, the questions' wording. These approaches are unlikely to gain a mark that takes a candidate beyond the threshold of a pass.

Evidence of having been instructed on the interpretation of keywords was more evident this session than in previous examinations. Given that marks are awarded for how the question is answered, candidates seemed more able to consider how the questions were constructed when giving their response. Centres that prepare their candidates appropriately in this way are to be congratulated.

Centres should remind candidates that it is difficult to award marks when handwriting is illegible.

Comment on Individual Questions

Question 1

(a)   Many candidates were able to give a sensible training need and, pleasingly, were able to continue with an accurate description of why this would be required for the individual.

(b)   Candidates who could give a specific advantage to the owners of the bookshop and then continue with an explanation were more prevalent than in previous sessions. Context specific answers to a context specific question is how marks are gained.

(c)   As with part (b), answers that reflected the individual group within the question gained both marks.

(d)   The disadvantages specifically for the customer were well documented and, in a majority of cases, well considered. This was pleasing to see.

(e)   (i)   Considering the vast majority of the candidature had recently completed the coursework element of the specification, vague descriptions of a test taking place were common. A specific method was not always named and fewer still were able to complete a full description of the chosen method.

(ii)   As with part (i), too often subject specific language was not used resulting in poorly constructed vague answers.

Question 2

(a)   Two factors that may reduce the reception of a wireless signal were well documented. Too many candidates did not read the question thoroughly enough and as a result gave answers that were not specific to the context of the question. Whilst obstructions that were sensibly qualified gained marks, those involving mountains, trees and suchlike did not. Distance was all too often given as an answer without considering what the distance was from.

(b)   Given the more frequent use of wireless networks, many candidates struggled to identify two distinct advantages and there was little expansion of points. Too many candidates focused upon safety issues rather than the nomadic nature of the network and its expandability. This was disappointing and centres need to ensure that emerging technologies form part of the candidates' experiences.

(c)   (i)   Many candidates gained a single mark for a vague description of a router's purpose within the context of a home broadband network. However, the vast majority of answers eschewed specific technical terminology.

(ii)   It was apparent from candidates' answers that many had a working idea of what a print server's purpose was. Eloquently relating this on paper proved more difficult.

(iii)   Too many candidates used the question's wording as part of their answer without explaining its purpose using the technical vocabulary expected at this level. Those gaining both marks however, often gave textbook definitions.

(d)   Pleasingly, the 'faster', 'quicker' type answers were rarely seen when relating bandwidth to data transfer. Many candidates gained both marks for an appropriate and accurate use of terminology.

(e)   This question was not done well, with many candidates misunderstanding the word 'media' having not understood the focus of the question properly.

(f)   Few candidates failed to give an accurate explanation of the impact of having ADSL, perhaps from their own experiences and something other parts of the specification would benefit from.

(g)   The majority of candidates, with very few exceptions, were well able to give both benefits and drawbacks of ring and bus networks. Notably, candidates structured their responses clearly, with only a tiny proportion of candidates including a star topology in their response. Whilst this indicates inaccurate reading of the question, candidates can often be caught out by concentrating on the workings of only part of a learning outcome from the specification.

Question 3

(a)   (i)   The majority of candidates gaining marks on this part of the question did so on their understanding that a wider range of programmes could be made available, but did not continue with the description of why this was advantageous and so gained only single marks.

(ii)   This part of the question saw most candidates gaining marks for portraying an interruption of signal, yet as with part (i), few were able to extend to a full description of why this would be disadvantageous to the customer.

(b)   A high percentage of candidates gained all three marks. Very few commented upon encryption or decryption and, similarly, too few wrote about how checks were made to ensure that the receiver had subscribed to the service. However, very few candidates mentioned the brand name of a major satellite company, a vast improvement on previous years.

(c)   Many candidates scored single or, at most, two marks for this part of the question. Too often these answers had to be extracted from vague responses showing weaker coverage of this part of the specification for some.

(d)   This part of the question was very well answered by most candidates, which was pleasing to see. Many bordered on a comparison of features rather than stating three differences between an intranet and the Internet and expanding their answer. Further thought on answer construction would have meant full marks for many more candidates.

(e)   Candidates often mentioned items which would not be recorded in an audit log of calls, such as date of birth, mothers maiden name etc. And in so doing, limit the marks given.

Question 4

(a)   (i)   Very few candidates understood the concept of a dialogue box appearing over the form, so that the form was unchanged and could be returned to.

(ii)   Again, many candidates did not understand that feedback would be immediate and mentioned letters, emails and telephone calls.

(iii) A small minority of candidates talked about customer confidence whereas most responses related to getting a quote from the company. Having not faired well in part (ii), it was unlikely that marks would be gained here either.

(b)   Too many candidates mentioned feedback as a feature, although it was specifically excluded in the question. Many points mentioned were not relevant and as a result, a wealth of marks were squandered.

Question 5

(a)   Some candidates did not seem sure what directory enquiries were. A good number of candidates were too pre-occupied in describing the working of the cellular phone system, rather than explaining the stages that would happen when looking for a number.

(b)   Candidates, in general, were too vague, rather than just stating what would seem an obvious response such as name and address.

(c)   Pleasingly, a well answered part of the question, although some concentrated more on the limitations of download speed from the internet rather than the limitations of such a website.

(d)   Here, many tangential responses were given that did not fully address the question. Too many ill-timed responses across the paper as a whole resulted in candidates having to rush this, their final answer. As a result, candidates again failed to read the question and wrote about acessing the internet via a laptop. Some just described problems without suggesting how advances in technology may help overcome them.

2516 Project

General comment

The standard of the work produced by these young people continues to amaze. Even the candidates whose attainment is, sadly, poor, manage to impress in the work that they have managed to produce. The usual reason for the poor attainment is that they have missed out whole sections of work. While this is occasionally the fault of the centre for not supervising the work properly (there was one centre at least where none of the candidates had any evidence for c(iii)) the normal reason was probably that the candidate had not been a regular attendee. While this is bound to happen, it is always a shame when it does and doubly so, as in the case of the last centre that I have moderated where a candidate has been, rightly awarded almost full marks for sections a and b, and then almost nothing else. Teachers can have little influence over such candidates but we must be vigilant in making sure that candidates who are producing the work do not get penalised because they have failed to produce the evidence for a section of the work.

Many of the projects are superb and the candidates involved deserve to receive praise for their work and I am hereby giving mine These candidates deserve recognition from their clients as well. This is the intention of the end user acceptance letter. It is not just the client being able to give their opinion on the work but it is that all important acknowledgement of the effort that has been put in by the candidate. The letter is one of the most important sections of the work because this is the whole purpose of the project- to satisfy the client. If done properly, there is no further evidence necessary in e(ii). By 'properly' we do mean headed notepaper (use school or college headed paper if necessary) and to have it signed off at the end. The quality of this letter of acceptance is presently very variable which is a shame when set aside the quality of the work which it is assessing.

The physical presentation of the work is excellent from almost all centres, thank you.

Most projects now have contents pages, though not always numbered pages! Most have dropped the idea of appendices and put the evidence in appropriate places in the report so that the reader/moderator can find it easily. I have never been able to understand the habit of placing evidence somewhere other than where it should be (according to the guidance supplied) as the only effect is that the moderator may not find it which will, ultimately, penalise the candidate. The latest fashion seems to be to place the user acceptance letter somewhere else in the report, the most popular seems to be in section c. Why? It is clear that it will be assessed in e(ii) and that that is where the moderator will be looking for it.

Most centres are providing useful teacher comments, thank you.

The participation of the end user/client is continuing to improve and a distinction is being made between the end user and client now which also adds to the quality of the finished report.

Sections

(a) (i) This continues to improve. It seems that teachers are able to persuade candidates that it is not necessary to write an essay for this section and most people now have the idea that we are only looking for the five pieces of information: what the organisation is or does; who the client is; the place of the client in the organisation; the problem, in very broad terms; an indication of the data involved and where it comes from. There follows an example version of section a(i) which demonstrates how to earn 5 marks in just three and a half lines of text:

"Mrs Smith works for Jones and Son, haberdashers. She is in charge of customer records and finds difficulty in collating the information collected. Customers leave details of their addresses when ordering ribbons and buttons, and their preferences, according to what they ordered are noted by the shop assistants."

This answer earns all 5 marks, though most candidates will not be satisfied with this. However, extra information/knowledge should be justified, e.g. "Customer records are stored in a computer file which only Mrs. Smith and Mr. Jones have access to, this is controlled by using passwords". How does the candidate know?

(ii) Centres are doing a good job of directing the candidates to providing the sensible evidence here. There will always be exceptions to every rule and there will always be projects for which other evidence is necessary, but we are looking for an interview with the client, a consideration of alternative solutions and a set of requirements. The interview needs to be planned the interview itself needs to be presented to the moderator in the form of a transcript so that the moderator can find evidence of both parties playing a full active part in the interview and that it is not a questionnaire.

Many centres are encouraging candidates to do more than one interview! Why? This simply tells the moderator that the interview was not planned properly in the first place. A bit of a generalisation, and there will be occasions when it is sensible to have a second interview or even to interview someone else, but the quality of the interview is not measured in terms of volume. The alternative methods of solving the problem are poorly done at the moment by many candidates, who have done the interview and then seem to dispense with the client altogether. I suggest that the best way to encourage the candidate to produce a sensible set of alternatives is to think of an audience. The candidate should produce a description of at least two solutions which is in language that the client can understand when they read it. The candidate should then write a recommendation to the client and it is then the client who decides and there should be evidence of this.

(b) (i) This is being well done by candidates. Centres are encouraging candidates (in the main) to produce design work that is appropriate to the problem which they are trying to solve. This is excellent and is to be encouraged. Unfortunately there are some centres which are trying to make their candidates 'jump through unnecessary hoops' many of the stages of which do not apply. This is inappropriate as such a one size fits all approach indicates a lack of individualism and also that the problems are not real, but have been manufactured to fit what the teacher believes should be necessary in a problem solution.

The presence of the client is as important here as anywhere else. There should be evidence of the client agreeing to the designs and suggesting changes to the basic designs that they would like. Without this input the design is simply linear in nature, the client should be used to be the catalyst which inspires the candidate to have to loop back to previous decisions and alter them in order to improve the solution.

(ii)   Well done

(iii)   Centres have accepted the need to size the solution and the evidence is being produced.

(c)   (i)   The skills needed for the implementation of the solution are being well remembered from the AS part of the course and the design is normally being put into operation and most is working. The testing is being done and is well presented. One area for improvement is the relation of the tests to the set of objectives. We have consistently tried to make clear that we are interested in functional testing. The intention should be to provide enough evidence to encourage the client to accept that all the required objectives have been met. To that end the tests in the test plan should all be related to the objective that is being tested and all the objectives should have tests related to them. To this end it is strongly advised that the candidate should produce the test plan before beginning on developing the software solution. This will avoid the unfortunate situation where it is the software that is tested rather than the success or otherwise in satisfying the objectives. It should be noted that the definition of 'fully tested' is that the client reasonably accepts that enough evidence has been presented in the form of test results to declare that the solution has satisfied the objectives.

(ii)   There is still some confusion over the degree of evidence required here. In this section, in particular, there will be variations dependent upon the problem solution produced.

However, it is reasonable to suppose that the following items will appear, to a greater or lesser degree of success, in most of the projects:

- description of sensible methods of implementation;
- in client terms;
- with reasoned recommendation;
- evidence of client being fully involved in the decision; plans for training;
- different users may need different training;
- training materials, of varying qualities;
- consideration of the creation of the genuine files as opposed to the testing ones;
- how such creation of files will be done;
- hardware and software installations into the organisation as opposed to the school; evidence of end user use;
- consideration of need for help post hand over.

I am aware that when a list like this is produced the natural reaction is to treat it like a ticklist, but please don't.

(iii)   Many centres are failing to provide diaries/logs showing the development of the work. This is expected and failure to produce it will mean the candidate being limited in their mark here.

(d) (i) The technical guides tend to be well done with plenty of content.

Three comments:
1. They are often providing the candidate with too much work. We have been saying for many years that this does not have to be a stand alone guide, what is the point? The information is there in the rest of the project. A set of pointers to the evidence is all that is required. The candidate is obviously not penalised for this except that they are penalising themselves because of the amount of extra, unnecessary work that they are having to produce.
2. The many pages of code are thankfully a thing of the past, thank you.
3. One element of maintenance, and maintenance is what this is for after all, is the need for adaptive maintenance. We teach the candidates this in the AS units and yet when it comes to producing it for real the candidates do not include it, all the content is about what I did and what to do if the system goes wrong. A short section of the form: 'If it is decided that it is necessary to archive redundant records once a month then this is what should be done…' is all that is necessary. I accept that this is higher level work, but then the discrimination should be present somewhere!

(ii) Some of the user guides are projects in their own right. Some of the on-screen help is superb, with buttons on the screen bringing up help files when requested. However, there are still impenetrable validation messages and there are still many centres that are encouraging candidates to produce 'on-line' help. Where does this come from? I can understand it if the candidate has their own website to which they want to direct the client for assistance, but in the form that it presently appears of going to an Access site is not helpful or useful.

(e) (i) Most centres are encouraging candidates to provide evidence for their assertions and, consequently, this section is being well done.

(ii) Letters are still sometimes poor. This is my personal bête-noir. If a 17 year old has put all this effort into the work, and some really are superb, then they DESERVE to have the client properly show their appreciation. If there is one area which I would urge us as a group to concentrate on it is this.

(iii) Well done.

Finally, can I pass on the thanks of the moderating team for the large majority of teachers who obviously put a massive amount of effort into helping the candidates, in the best possible way (!) and making life as easy as possible for the moderators, it is appreciated. I should also pass on the thanks of the candidates that you prepared for this assessment, I am sure that many failed to thank you in person but they would have done if they realised the amount of work that you obviously put in on their behalf.

2517 Systems and Systems Management

General Comments on Individual Questions

Generally candidates appeared to have difficulty with the definition of terms. Data, MIS, CAL, video-conferencing and so on were all part of this paper but many candidates were resorting to guess work rather than to learned definitions. There are sections of the paper where candidates are expected to provide examples and to use their wider A2 knowledge but in many cases part of the question relies on the candidate having learned to define a topic or its characteristics.

In this paper there were three discussion questions. In order for the candidate to move from the lowest band, more than a list of facts was required. Consequences, advantages, disadvantages of those facts are required to achieve higher marks. Disappointingly few candidates were able to provide those.

Question 1

(a)   Generally candidates were able to define data correctly. However in the subsequent parts of the question, examples were asked for. In many cases the candidates gave descriptions rather than examples and therefore scored no marks.

(b)   Most candidates understood the role of the personnel system though many thought that it involved customers, or in the context of this question, students and therefore scored no marks.

(c)   Generally candidates were able to score marks here.

(d)   Although many candidates were able to gain marks for describing a complex query, fewer were able to describe a parameter query. In both cases the examples given were often trivial or poorly thought out. Some candidates had already lost the thread of the scenario at this point and were giving examples related to an estate agent selling houses rather than a company renting to students.

Question 2

(a)   Generally well answered with most candidates able to gain marks for the responsibilities of project manager and programmer. Trivial answers such as "The project manager manages the project" and "The programmer makes the system" were not given credit.

(b)   Although the majority scored marks here a disappointingly large number of candidates gave examples of input devices rather than the required output devices and many failed to relate the purpose to the scenario.

(c)   This question was poorly answered. Most candidates just gave a list of facts relating to cognitive psychology and artificial intelligence with no discussion at all. The question did not ask candidates to define artificial intelligence or cognitive psychology but to "discuss the factors involved". Many candidates stated, for instance, that regional accents would be a difficulty for the input system, but almost none went on to discuss the consequences of the system failing, or indeed succeeding, in recognising accents.

Whilst the majority of candidates were able to answer this question successfully a large number seemed to have no idea what Computer Assisted Learning meant.

Question 3

(a)   Most candidates appeared to understand the concept of batch processing but few were able to explain why it would be the best method for producing the newsletter. Similarly, although real-time processing was understood, explanations as to why it was a good method for searching for properties were often unconvincing or poorly thought through. It is important at this level for candidates learn to apply what is in effect GCSE knowledge to given scenarios.

      The specification mentions three processing methods. Two were given to the candidates as part of this question and the candidates were asked to identify a third type of processing. Dozens of incorrect, made-up answers were given with only about half the candidates providing the correct answer.

(b)   Generally well answered.

(c)   Most candidates understood the concept of direct installation but few were able to explain why this should be the method used in the context of the scenario.

(d)   A discussion question that was poorly answered, with lists of the type of support required by staff but no discussion given.

Question 4

(a)   Generally well answered with the advantages of video conferencing understood by most candidates.

(b)   A large number of candidates were unable to describe a Management Information System.

Question 5

(a)   Generally well answered.

(b)   This question is traditionally where the candidates can show off their acquired ICT knowledge and use their imagination to describe what could happen in the future. A wide ranging scenario was given to encourage the candidates. Some good ideas were expressed but most candidates failed to discuss the consequences of any of the points they made and so were unable to move into the higher mark bands.

Grade Thresholds

Advanced GCE (Subject) (Aggregation Code(s))
June 2008 Examination Series

Unit Threshold Marks

Unit		Maximum Mark	A	B	C	D	E	U
2512	Raw	90	58	52	46	40	35	0
	UMS	90	72	63	54	45	36	0
2513	Raw	120	100	91	83	75	67	0
	UMS	120	96	84	72	60	48	0
2514	Raw	90	61	55	49	43	37	0
	UMS	90	72	63	54	45	36	0
2515	Raw	90	55	50	45	40	35	0
	UMS	90	72	63	54	45	36	0
2516	Raw	120	100	88	76	65	54	0
	UMS	120	96	84	72	60	48	0
2517	Raw	90	56	50	44	38	33	0
	UMS	90	72	63	54	45	36	0

Specification Aggregation Results

Overall threshold marks in UMS (ie after conversion of raw marks to uniform marks)

	Maximum Mark	A	B	C	D	E	U
3838	300	240	210	180	150	120	0
7838	600	480	420	360	300	240	0

The cumulative percentage of candidates awarded each grade was as follows:

	A	B	C	D	E	U	Total Number of Candidates
3838	4.5	17.5	38.9	63.4	83.7	100.0	4130
7838	5.6	22.9	50.4	77.3	94.7	100.0	2498

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

Statistics are correct at the time of publication.

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