OCR

Oxford Cambridge and RSA

GCE

ICT

Advanced GCE **A2 H517**

Advanced Subsidiary GCE **AS H117**

OCR Report to Centres June 2014

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

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

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

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OCR REPORT TO CENTRES

G061 Information, Systems and Applications

General Comments

The use of technical language was much weaker in this paper than in previous series. It was also disappointing to see large parts of the paper which appeared not to have been covered by centres. Candidates who had been prepared in the three elements – knowledge, exam technique and application to the scenario were the ones who scored the best. There was concern over the depth of some of the answers given. This paper represents a year of study at AS level and the responses should reflect this. This includes the use of technical language and an understanding of the concepts. Many responses did not reflect a period of study.

The essay question was once again disappointing and showed a lack of background reading from the majority of candidates.

Comments on Individual Questions:

1a   The majority of candidates achieved one mark for knowledge. Many confused it with information and gave the definition of how data becomes information instead.

1b   Too many candidates are still giving two descriptions rather than a comparison and this is limiting the marks that they can achieve. Examination technique is an important skill that needs to be taught if candidates are to gain high marks.

1c   It was pleasing to see that many candidates knew what relevance and completeness were. However, the link between them and the quality of information on the website was not as well done with many candidates failing to give a description.

Most candidates were incapable of explaining the two terms without repeatedly using the words 'relevance' and 'completeness' in their answers and so were not able to achieve full marks.

1d   Candidates often failed to give two differences across the whole question. Many responses contained one difference across both parts of the question which limited the marks available to half. There was a distinct lack of understanding of the difference between a clipart and an image library and many candidates answered questions from previous years which asked for the advantages and disadvantages of using clipart.

Many candidates gave comparisons between vector and bitmap images and many mentioned copyright quite a few times as well.

2a   The question focused on a specific element of the data dictionary – that which related to tables. Many candidates ignored this aspect of the question and gave responses that focused on fields.

2b   This was very well answered. The majority of candidates scored full marks. Those that did not often gave number or string as the data types.

2c   Whilst there was some understanding demonstrated about simple and complex queries the examples given were not detailed or in enough depth. Responses given have to demonstrate that the candidate has studied the subject and need to be in greater depth. In many cases the examples given did not demonstrate detailed knowledge.

2d   This question was very well done. Where candidates used examples to exemplify their responses they invariably gained high marks.

3a   This was very well done with the majority of candidates achieving full marks.

3b   A justification requires the candidate to apply a detailed understanding of the subject to the scenario. Many candidates described features of desktop publishing that would be useful but failed to relate them to why the company would need them or why they made DTP the most suitable software to use.

4a   This response required a detailed understanding of the mail merge process and the order required was very specific. Many candidates did not understand the order of a mail merge.

4b   This was badly done by most candidates who confused frame and border. Many candidates thought this referred to a writing frame or a template. The example mark was linked to their understanding of frame and if they obtained the first mark, many went on to gain the second.

4c   The question asked candidates to identify the changes - many were too vague and did not identify the change that needed to be made, for example, change margins is too vague to be awarded marks at this level. Change font needed to be qualified – type and size to a smaller one to gain marks.

5a   Many candidates gained half marks, with those that considered the impact on the company gaining higher.

5b   Buttons was answered reasonably well with candidates giving a basic description and the example. Menus were often confused with option buttons, buttons or drop down lists and very few marks were awarded.

5c   This was answered very well with most candidates achieving half marks and a large proportion going on to expand on their answers to achieve full marks.

6a   This is a concept of spreadsheets that should be well known. It is therefore disappointing that many candidates latched onto the idea of changing values and then proceeded to write three different advantages based on the same idea. Very few candidates were able to give three good responses.

6b   Responses to this question were very centre based. The mark scheme allowed for different interpretations of rules, from validation, to conditional formatting to structures of functions. Some candidates scored highly but the number of responses that were vague and demonstrated a lack of clear understanding was worryingly high.

7a   This was very well answered with many candidates understanding automatic transition and giving advantages of its use thus gaining the mark.

7b   Candidates are still not gaining the mark for pixilation – this does not happen in resize, it only happens on enlargement. Aside from this, candidates scored highly.

It was disappointing to see some candidates comparing vector and bitmap images which did not gain marks.

7c   Marks could not be awarded for presentation software as this was in the question, however many students still gave it. Those that read the question and gave applications to help produce the presentation (not DTP for creating leaflets to hand out) gained high marks.

7d   Most candidates scored full marks on this question.

8   Candidates struggled on this question suggesting this part of the specification needs a greater focus in teaching and learning. However, in some centres where it was apparent that the content had been delivered, candidates gave good detailed technical responses that gained full marks.

9a   It was disappointing to see the large number of candidates who did not know what BCS stood for. It was also disappointing to see that those who did still think they solve network issues.

9b   As a learnt response this was very poorly answered. Candidates should know the different types of user interfaces and be able to give examples of their use.

9c   Many candidates failed to read the question and whilst they gave advantages of networks, they failed to relate them to advantages to the customer.

9d   This part of the specification would benefit from a greater focus by centres.Candidates did not know specifics and often gave the same answer in three different ways. Answers were generally lacking technical knowledge and vocabulary.

9e   This was very well answered with the majority of candidates gaining full marks.

10   This discussion question is a familiar one and the mark scheme follows a similar format to previous years. There are some concerns over what constitute future developments. Many answered focused on the Internet, Twitter and Facebook rather than future developments. This essay is linked to the general knowledge and understanding of the candidate – they should be watching television programmes about new and future technologies, reading the latest magazines on ICT, visiting websites that look at new technology and integrating this with an understanding of examination technique and displaying their depth of knowledge by giving the impacts and consequences of those technologies. All too often a weak description of an existing technology with no consideration of how it would impact on the way a company could promote its services was given.

G062 Structured ICT Tasks

General Comments

The presentation and quality of much of the candidate work was very good. Most centres did provide candidate work that was clearly organised with a cover sheet containing the candidate's name and number and this was appreciated. The level of teacher annotation to indicate where and why the mark had been awarded differed from centre to centre. It is recommended good practice to follow the guidance on marking work, as indicated on the front cover of the mark scheme, which states 'if a candidate meets the requirements for a mark then tick the box next to that mark'. It is beneficial to use the numbers on the left hand side of the tick boxes to cross-reference evidence on the candidate's work. Those centres that exhibited best practice made it considerably easier for the centre marks to be validated during moderation.

A wide range of different software applications and utilities were successfully used to solve the tasks this year. This included both freeware and proprietary packages. It should also be noted that some packages will make the solutions to the tasks considerably easier than others for a given task and centres are reminded that the FAQs and Teachers' Guide provide suggestions for suitable software packages. The FAQs and Teachers' Guide also contain a list of skills that it would be beneficial to teach the candidates before the candidates tackle the tasks.

Many candidates continue to find questions that ask for annotated evidence to 'explain how' a particular feature or routine was implemented difficult. Candidates need to be encouraged to provide detailed explanations that demonstrate that they have a clear understanding of the solution that they have produced. This is often a key differentiator of good candidates. This particularly applies to annotating formulae within spreadsheets and queries and expressions within the database tasks.

Comments on Individual Questions:

1 a Many candidates gained full marks presenting a navigation diagram of how all slides are connected together. Clarity was lacking in some candidates work.

 b i Most candidates gained marks for a full specification. Marks were lost where candidates had left out key specification information such as the style, colour and size of font.

 b ii Most candidates produced an accurate master slide. Some candidates did not include the logo within or alongside the navigation bar so marks were lost.

 c i Most candidates produced an excellent set of slides that matched the requirements given.

 c ii Some candidates lost marks in the section because they did not show how the requirement was met, such as how the title was placed at the start of the video and how the video was embedded.

 d The quality of testing continues to improve and most candidates did clearly specify the relevant slides in the presentation for the test. Some candidates are still missing full locations though and marks were still being awarded incorrectly for this.

 e Most candidates scored some marks for the help sheet but it was clear that candidates do need to consider more carefully the steps that would be required by a user to perform a certain process. Marks were sometimes lost for a lack of content rather than the standard of presentation.

2 a i Most centres have now instilled the importance in candidates of printing spreadsheet evidence that shows row and column headings to allow cross referencing of the evidence.

a ii Marks varied quite dramatically between candidates and this was due to the level of understanding that the candidates could show through provision of clear explanations. Where a formula such as an IF formula is used it is expected that candidates can explain the different parameters to the function and then how it works to generate the required solution. A number of centres did award marks incorrectly for labelling of the evidence where candidates had not provided this level of explanation.

b The quality of testing continues to improve and most candidates did clearly specify worksheet and cell references for the inputs and outputs. Some candidates are still missing full locations though and marks were still being awarded incorrectly for this.

c i Most centres have now instilled the importanceof printing spreadsheet evidence that shows row and column headings to allow cross reference of the evidence.

c ii Marks varied quite dramatically between candidates and this was due to the level of understanding that the candidates could show through provision of clear explanations. Where a formula such as a PMT formula is used it is expected that candidates can explain the different parameters to the function and then how it works to generate the required solution. Also, a number of candidates did not demonstrate an understanding of how the balance would be reduced to zero, but marks were incorrectly awarded for this. A number of centres did award marks incorrectly for labelling of the evidence where candidates had not provided this level of explanation.

d i Most candidates gained the marks. Marks were lost for some candidates for not using the correct labels on the graph.

d ii Marks varied for candidates and this was due to the level of understanding candidates were able to show. Marks were lost through candidates missing out stages that were vital to demonstrate understanding of how to create the graph.

3 a i Most candidates provided suitable evidence of a hand drawn entity relationship diagram.

a ii Most candidates gained the marks for the data dictionary. Centres must note that candidates are expected to be specific in their data types and should not merely state 'number' as a data type. Marks were lost for candidates who did not give suitable types of validation for fields.

b Most candidates gained marks for their tables and content.

c i Most candidates followed requirements accurately and created a good property screen.

c ii This part of the task clearly differentiated between candidates who could and those who could not explain a series of complex expressions. Where underlying queries are used within expressions it is important that candidates can identify them and explain them clearly. Marks were incorrectly awarded in places where candidates had not shown the underlying queries used.

d i Most candidates followed requirements accurately and created a good search screen.

d ii A good number of candidates did not clearly show the parameters used to return four properties. The easiest way to do this was to show the search screen with the parameters selected and the matching properties showing four.

d iii   Candidates who had managed to match four properties generally gained these marks. Most had remembered to sort the properties as requested.

d iv   This part of the task clearly differentiated between candidates who could and those who could not explain a series of complex expressions and a use of macros. Where underlying queries are used within expressions it is important that candidates can identify them and explain them clearly. Where macros are used candidates should clearly demonstrate that they understand what they are doing and why they are needed. Marks were incorrectly awarded in places where candidates had not shown the underlying queries used.

e   Few candidates managed to produce a working solution to this part of the task. It required complex expressions and queries.

f   Most candidates gained marks for their menu screen. Some candidates lost marks for not demonstrating the link back to the menu screen from each of the other screens.

g   The quality of the user guides varied from very professional to inadequate. It was encouraging that most candidates appreciated that a user guide would be an external document and that they took the time and care required to produce a professional standard of presentation.

G063 ICT Systems, Applications and Implications

General Comments

The performance of candidates was broadly in line with previous series. Some candidates had been adequately prepared for the paper and were able to answer questions with the required depth and technical knowledge required by the specification. Other candidates needed to develop their understanding of topics more fully and be able to explain them in a logical and concise manner. The depth of answers provided by some candidates was not at the level needed for an A2 qualification.

As with previous series, the quality of some candidates hand writing was problematic in a number of cases.

Comments on Individual Questions:

1   Most candidates were able to score some marks for this question, usually for giving examples related to the question. Very few were able to describe what the software types actually are.

2   This question was generally answered well, with many candidates able to describe limitations of the use of a meeting. A small number of candidates confused a meeting with an interview.

3   Few candidates were able to score full marks for this question, with many candidates confusing distributed processing with distributed databases.

4   Most candidates were able to score at least one mark for this question. Some candidates' poor exam technique prevented them scoring highly as they failed to present comparisons. Many candidates had a misunderstanding of the features of instant messaging, stating incorrectly that instant messaging could not send attachments.

5   For this question, candidates were asked to give examples of how a school could use an MIS system. Many candidates simply gave a definition of an MIS which scored poorly.

6   Again, poor examination technique meant that some candidates gave negative points when justifying the pilot changeover strategy. Others confused pilot and phased changeover.

7   Many candidates did not understand the ethical dimension to the question and were limited to marks in the first band for not answering in context and simply describing what a code of conduct was.

8   Most candidates answered this question well. A small number of candidates did not fully consider the fact that the business was backing up online.

9a   Technical responses were few and far between for this question that wanted details of how the data was transmitted. This was disappointing for a straight-forward learnt response question.

9b   Many candidates gave reasonable responses, but a common error was to cite cost which is not a limitation of the transmission.

10   Many candidates repeated answers related to access to intranet resources from any location via an Internet connection. Fewer could cite the increased level of access control.

11a   This question was answered well by most candidates,

11b   Again, this question was generally well answered, but, disappointingly, a number of candidates failed to read the question and gave software related security methods rather than physical measures.

12a   Many candidates did not fully understand client involvement and this was both disappointing and surprising given that candidates should have had first-hand experience of this process through completion of the project for G064. Some candidates also confused the client involvement with the design stage with the gathering of the initial requirements in the analysis.

12b   Most candidates had an understanding of how a project manager could use a Gantt chart.

12c   Again, some responses were disappointing given the candidates practical experience in G064. Centres could better prepare candidates by linking the cross-over theory points in G063 with G064.

12d   As in previous series, this topic presented difficulty for many candidates. Many candidates gave very vague answers and struggled to give relevant examples for the points they made.

12e   It was clear that many candidates had not covered the topic of the Model Human Processor and fewer knew how it could be applied to the design of an application via a stimulus giving rise to cognition that lead to a motor response.

12f   Candidates often gave advantages of RAD rather than describing how it could be used in practice and therefore failed to gain credit. This was another example of poor exam technique.

13   The majority of candidates were able to score well on this question. A few did not seem to understand what a flow chart was, with a data flow diagram being the usual incorrect answer presented. A wide variety of incorrect symbols were also presented. Some candidates simply presented all parts of the diagram using an identical symbol.

14/15 It was pleasing to see that more candidates were able to score highly in this question. As in previous series, some candidates failed to include the necessary depth of analysis to allow them to score highly. A small number of candidates simply listed a number of unrelated points without any real analysis that prevented them from scoring highly. Some candidates had either not read the question or had not understood it and wrote an essay that had no connection to the question asked, which obviously scored poorly.

G064 ICT Project

General Comments:

It was pleasing to see that nearly all centres are now using the new marking criteria and projects are appropriately structured. A large number of centres are annotating the mark sheets with comments and references to page numbers, which enable the Moderator to easily identify where and why marks have been awarded. Centres are strongly encouraged to annotate the mark sheet, especially if candidate evidence is not easily located.

Comments on Individual Questions:

a(i)   Nearly all candidates were awarded full marks for this section.

a(ii) Candidates were able to plan a detailed investigation into the current system and how it operates. A number of candidates were still discussing the new system requirements in this first investigation, which is not required at this stage. The current system investigation will enable candidates to develop a detailed understanding and analysis of the current system and the problems that the client is facing.

A second investigation should then be developed, which will enable the candidate to gather all the required information they need to develop their system to meet the needs of the client.

a(iii) Most candidates were developing a specific set of requirements that are measurable. They were also able to discuss three different alternatives in relation to each of these requirements. The hardware and software specifications sometimes lacked sufficient detail to be awarded full marks. Candidates must ensure that all of the hardware and software components required by the system are listed and discussed in relation to the requirements specification.

b(i)   Many candidates produced a detailed set of designs that clearly enabled the client to visualise and understand how the developed system would look and operate. For top marks, candidates must ensure that their designs are in sufficient detail, so that a third party may successfully recreate them. This is also applicable for the test plans, which must have specific test data and expected outcomes to be awarded full marks.

b(ii) Fewer candidates were covering the whole project for their project plans and were focussing solely on the system development aspect, which is pleasing to see. Project plans should cover all elements of the system development, with each being listed as a separate task. Predecessor and successor tasks should also be taken into consideration and included.

c(i)   Many candidates were developing complex non-linear systems, using a range of methods including spreadsheets, databases and websites. A few candidates were still developing projects that are classed as linear and these are frequently over marked by centres. For any type of project, centres must ensure that they follow the non-linear processing requirements if they are to be awarded marks from the middle and top mark bands. To achieve this, data must be processed in two different ways for a system to be classed as non-linear. Centres are also reminded that candidates cannot be awarded marks in the top mark band for the system development, if all items in the requirements specification have not all been achieved.

The processing is often over-marked by centres. Candidates should show how one element of their system that processes data was firstly developed and then show that it working as expected; using test data to show the correct flow of data throughout the system.

The evidence showing the system HCI was completed to a good standard. Candidates should discuss how any relevant requirements have been met, along with evidence demonstrating different aspects of the developed system and how the HCI has been amended accordingly.

c(ii)   The description of training required was frequently written in detail and the plans clearly showed that candidates had thought about the training needs of their client. The data transfer sometimes needed further expansion, with regards to the volume of data needing to be transferred from the old system to the new. Nearly all candidates were able to provide a detailed comparison of the different changeover methods available. Fewer were able to discuss each method in relation to the organisation and how each would impact it.

d   User guides were well presented; many containing excellent features and were marked quite accurately. Some guides still did not cover all elements of the system that had been developed. Most candidates were providing good examples of on-screen help, but it should be noted by centres that for candidates to be awarded marks in the top mark band, they should be including an on-screen guide to the user, in addition to the on-screen help.

e   Many candidates provided a detailed description explaining how each of the requirements had been met. Where elements had been unsuccessful, they had then discussed why this occurred and what could be done to rectify the issue. Candidates had also provided a range of extensions that could be added to the system. Many did not describe exactly how they would be implemented within the system.

The comparison of the software development and project plan was attempted by most candidates, with them successfully identifying differences between the two and a discussion into why this had occurred.

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