OCR
RECOGNISING ACHIEVEMENT

GCE

ICT

Advanced GCE **A2 H517**

Advanced Subsidiary GCE **AS H117**

OCR Report to Centres

June 2012

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, OCR Nationals, 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.

CONTENTS

Advanced GCE ICT (H517)

Advanced Subsidiary GCE ICT (H117)

OCR REPORT TO CENTRES

G061 Information, Systems and Applications

To score high marks in this paper three things are required: knowledge, application and examination technique. There were many examples of candidate responses where these three were present, however, there were others which lacked at least one of these elements.

The quality of handwriting was poor in this series making it difficult to credit answers as they could only be read with great difficulty.

1a This was well answered with the majority of candidates identifying two aspects of the example given that make it data.

1b This was generally well done with candidates describing the advantages. Marks were lost by some candidates for an insufficient expansion of their identification of the advantage.

1c There is still confusion regarding the difference between backup and archiving of data. A large proportion of responses related to backup and very few candidates appeared to understand the reasons for archiving.

1d Whilst the majority of candidates answered this well, it was disappointing to see responses that gave application software or operating systems in their answers.

2a A significant number of candidates did not know the difference between a graphics library and a clip art library. Therefore, the majority of responses to this question were about a clip art library and so scored no marks.

2b Since the majority of candidates failed to score marks in 2a, they also scored poorly on this question, giving responses more suited to clip art libraries.

3a This question was useful in differentiating between those candidates that had studied presentations in detail and those who had not. The term animation, within ICT, does have two definitions, but as a feature of presentation software, only one can apply. Those candidates that gave responses based on video or animated gif were not credited with marks.

3b This question was generally answered well with the majority scoring at least half marks. There was a lack of expansions in answers that restricted the marks available.

3c This has been seen as a compare question in the past and a few candidates attempted to answer it as such. Those candidates that read the question carefully scored at least half marks. Many struggled to give a second advantage.

3d It was unfortunate that candidates focused on touch screen and wrote about the installation on a touch screen monitor. Changing the hardware without any software changes will not alter how the presentation works. Some candidates performed well on this question, identifying the changes that would have to be made.

3e Those candidates that focused on output or foreign languages performed badly on this question. This was about the interaction from the viewer with the presentation – the input.

4 Some candidates confused the terms such as relevance and completeness and moved away from age, level of detail and accuracy into these terms. Those candidates that were able to apply their understanding of the terms to the scenario performed well on this question.

5a Elements that can be tailored in a spreadsheet are very specific and candidates who focused on the data did not perform well.

5b The responses to this question were linked to the marks achieved in 5a – if the candidate had an understanding of tailoring they achieved some marks. There were too many responses that gave general terms such as easier and faster that do no gain credit at this level.

5c The context was important in the response, but too many candidates used the words from the question in their answer. There is some confusion over what is a feature – many candidates gave 'what-if?' questions as a feature, without the understanding that it is the use of variables and functions that enable the 'what-if?' questions to be asked.

5d A large proportion of candidates answered this well gaining over half marks.

6 Candidates who had the knowledge of what a plotter was and why it should be used within the given scenario scored highly. Many candidates gave single phrase identifications of why a plotter should be used without expanding their answer with reasons why.

7 Previous papers have asked for elements that would appear in a house style. Many candidates answered this question by listing the features that would appear in a house style. The answers should have related to what a house style actually is.

8a This was answered poorly with a large proportion of candidates unable to give the definition of 3NF. Some candidates had an idea and were able to relate it to the scenario but there were few that demonstrated the technical understanding to gain both marks.

8b Most of the diagrams that the candidates drew were related to the topic. input, process, output diagrams were common. With the need to have produced evidence of an ERD for the Structured Tasks (G062) it was disappointing that a large proportion of candidates did not know what this question was about or what it was asking them to do.

8c There are still a large proportion of candidates who are unaware of the data type required for telephone number. Another common mistake included number instead of the type of number and the reason being a description of the data type rather than a reason for its use.

8d There was a lot of confusion over a static and a dynamic parameter. Some candidates confused it with simple and complex parameters whilst others were confused between static and dynamic data. A significant proportion of candidates were unaware that a static parameter can give dynamic results. Of those that were awarded marks for the differences, very few went on to demonstrate an understanding by giving suitable examples related to the context.

8e A large number of candidates gained half marks on this question.

9 The focus of this question was moving from standalone to a network. It was therefore important for the advantage to be one that could not be performed with the computers in a standalone configuration. Many of the responses seen did not give answers that were specifically related to a network or to the advantages to a school.

10 It was hoped that the topic of this essay would have struck a chord amongst the candidates sitting the exam. In fact, many did identify different harms that could befall a teenager. Some candidates either tried to answer it as a discussion or gave a long list of descriptions without moving to the next level – that of explanation. This question looks at the depth of the knowledge that the candidate has, not the breadth, and requires them to link different parts of their ICT knowledge together.

11 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. Transparent glass, doors, maps, tunnels, traffic lights and car radios were all given as examples of future developments to our transport. This essay is linked to the general knowledge and understanding of the candidate – they should be aware of 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. Many candidates gave a weak description of an existing technology with no consideration of how it would impact on the lives of individuals was.

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.

A wide range of different software applications were successfully used for the graphics and animation in Task 1 and the website design and CSS in Task 5. Centres are reminded that the software they provide for candidates should enable them to create solutions that fulfil the requirements. It should also be noted that some packages will make this considerably easier than others for a given task.

Many candidates continue to find questions that ask for annotated evidence of 'how' a particular feature or routine was implemented difficult. Many candidates also continue to find difficulty with annotating formulae within spreadsheets, calculations, or queries within databases. Centres need to ensure that candidates are aware that they need to provide clear explanations that demonstrate their full understanding of how their solution meets the requirements. This is a key differentiating factor for successful candidates.

The tasks are differentiated carefully and it is not necessarily the case that the tasks get progressively more difficult. Within some tasks latter elements might be simpler than those that have preceded them. Eg In task 3 some candidates may have struggled to create a correct working model of the visitor queues in 3b but this would not have precluded them from attempting any of the later stages and gaining credit for them.

Once again, 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. You may 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 verified during moderation.

Centres have become more accustomed to the banded response areas within the mark scheme and the marking of these areas has improved. Unfortunately it was observed that some centres need to use the mark scheme more accurately. A number of centres had not applied the criteria accurately and had given candidates credit when evidence was to the contrary eg elements of the house style were missing yet marks were awarded. Some centres also failed to spot some of the nuances of the mark scheme which differentiate the most successful candidates. Eg some centres awarded marks to candidates in 2c(i) where the mark scheme required a calculation for 4 or more children to give 20%, but the candidate provided a rule for 4 children.

1 **a** Many candidates scored full marks for creating a vector image of the F-Bot robot. Where candidates lost marks this was often due to a lack of annotation showing where the requirements were met.

b Instructions in user guides were sometimes insufficiently detailed for a third party to be able to follow them eg evidence of scaling the graphic. It is important that the instructions for the operations within a help sheet are sufficiently detailed.
Some candidates did not apply the house style consistently. Help sheets should use styles for headings and sub-headings consistently and images should be suitably cropped.

c Storyboards were often well presented and most candidates achieved both marks available. Marks were lost where candidates did not give the timings required which meant that a third party would have insufficient detail to create the implementation.

d Annotated evidence of the animation was often weak. It is important that annotation highlights where software features were set to meet the requirements. Printed screenshot evidence on its own was insufficient for marks to be awarded.

2 a i Many candidates did not show sufficient evidence of how the file marketing.txt was used within the mailmerge or they did not provide evidence that showed how the required merge fields were included. Showing 'how' required a clear explanation of the procedure used.

a ii Most candidates showed how a filter had been successfully applied to select the recipients who met the criteria.

a iii The use of an If…Then…Else rule to customise the letter content proved straight-forward for most candidates.

a iv For those candidates who had successfully completed a(ii) the printing of the merged letters proved straight-forward. Centres should note that the completed letters from a mailmerge should be printed. A screenshot would not be fit for purpose to send to a customer.

b Most candidates successfully showed how they would watermark the F-Bot image into the background on the letter.

c i Annotated evidence of the rule used was required. A number of candidates did not provide an explanation of how their rule generated the required discount. Many candidates provided a rule that would work for 4 children but not 4 or more children as per the task requirements.

c ii Again, as in a(iii) most candidates customised the content appropriately using an If…Then…Else rule.

c iii A number of candidates did not read the requirement to print the discount to the side of the discount text or they did not ensure that the house style was accurately implemented. Those candidates that did so had little difficulty gaining both marks.

3 a i Candidates had few problems calculating the required visitor totals. Where candidates did not achieve the mark it was for not printing the required row and column headings.

a ii Each different formula must be annotated with a clear explanation. Many candidates did not explain that the visitor total formula was different at 9am to the other visitor totals. Candidates must be clear that annotation of formulae requires an explanation which is far more detailed than mere labelling.

b i Many candidates had a good go at creating the theoretical visitor flow model and a number of different and equally valid interpretations were seen.

b ii, iii Those candidates who had created a valid solution for b(i) had little difficulty identifying the required result from the model.

b **iv** The level of annotation varied from labelling that is not acceptable to very clear descriptions of each of the elements of the formulae implemented. It is important that a candidate can give a convincing explanation of how their formulae achieved the required result.

c **i** Candidates used conditional formatting rules within their spreadsheet models to achieve the requirements. Those that did not achieve the mark often forgot to include the key.

c **ii** Candidates did not always provide annotated evidence for all three of the conditions required. In addition, a number of candidates had an incorrect rule for large queues of over 50 and not 50 or more as per the requirements.

d **i** Those candidates who had created a valid model in b(i) often calculated the correct total for the queued visitor hours.

d **ii** Candidates who did not achieve the mark in d(i) were able to obtain the mark for d(ii) by using a correct function to sum the queue sizes. Those candidates who failed to gain the mark had not distinguished between queues and attractions that had excess capacity.

e **i** Many candidates had appeared to implement a solution to draw a graph of a selected attraction's queue figures, but fewer were able to fully annotate their solution to explain how it worked.

e **ii** Candidates who paid close attention to detail within the requirements did well. A number of errors were observed in the application of the house style where candidates did not achieve both marks.

e **iii** Candidates often successfully showed how a macro was recorded and attached to a button to complete the print operation. There was a need to identify the specific macro used.

f **i** Candidates often achieved the first mark for showing how the main menu navigation was set-up, but fewer candidates produced the evidence required to show that buttons had been added to the other worksheets to link back to the menu.

f **ii** Candidates had little difficulty producing evidence to show how the data worksheet was protected.

g Candidates often found it difficult to create a rigorous test plan. Testing must be clear. Precise locations (cell references) for input values and outputs values are required to enable a third party to be able to test the system. All relevant inputs are required for each test. To test a formula that has two input values it is necessary to identify both values. If a value is omitted the test cannot be performed.

4 **a** **i** Nearly all candidates were successful in setting up the required relationships between tables.

a **ii** Most candidates critically evaluated the most suitable data types for given fields but a worrying number incorrectly used the number data type for storing telephone number.

a **iii** Successful candidates showed that the import was successful by producing printed evidence of the table imported. Those candidates that failed to gain the mark often lacked this final piece of evidence.

b **i** Candidates were mostly successful in creating a data input form. Those that failed to gain the mark often did so because they forgot to include the F-Bot logo.

b **ii** Candidates who successfully achieved a mark presented evidence that was clearly visible and which was not truncated.

b **iii** All calculations required annotation. A considerable number of candidates provided calculations with no explanatory annotation. Successful candidates provided a clear explanation of the functions they used that demonstrated their full understanding.

b **iv** Most candidates successfully showed how to incorporate a print button onto the form.

c When a test is performed it is important that there is screenshot evidence that enables the test input value to be seen. Successful candidates clearly identified the input value and evidenced customised error messages. They also clearly annotated the rules that had been used with descriptions of how they worked. It was noticeable that many candidates had not customised the error messages suitably or had not provided annotated evidence.

d The loyalty bonus payment was one of the more difficult elements of the tasks. Evidence of solutions working for 'any' employee were limited. This necessitated candidates showing an understanding of the fact that the underlying employee data table needed to be modified.

e **i**
f **i** The level of explanation that candidates provided varied greatly. Successful candidates commented upon the type of query used and the parameters that were applied.

e **ii**
f **ii** Some candidates who had successfully implemented e(i) or f(i) failed to gain the second mark because they had not applied the house style.

g Many candidates displayed printed evidence of tailored data entry screens. Successful candidates annotated their solutions to show how the customised elements were added. Where candidates failed to achieve the mark it was usually for a lack of annotation.

h The quality of the user guides produced by candidates varied greatly. A number of marks will always be awarded for the presentation and structure of the guide. Successful candidates produced a professional guide in the house style with the required content with suitably cropped screenshots.

5 **a** Most candidates produced a suitable site structure diagram. However, a number of candidates produced complete page layout specifications which were not fit for purpose.

b Candidates used a range of techniques to implement the CSS requirements and the clearest evidence was often that which was provided by annotated HTML code. The choice of software used had an impact on how easy it was to produce the required evidence – a factor that centres should consider.

c Many excellent website implementations were seen. Inconsistencies in terms of page layout or text styles used were apparent when candidates did not achieve the full mark.

d **i, ii** Many candidates were able to show how relevant HTML code could be copied into the webpage to create a link to the weather and mapping feeds.

e Those candidates who had successfully implemented 5b were often able to produce evidence that showed how the CSS would be changed. Some candidates did lose marks for not annotating their solution to show the changes made.

G063 ICT Systems, Applications and Implications

General Comments

The performance of candidates was broadly in line with previous sessions. Many 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.

A significant number of candidates required extra space for their answers. Candidates should be reminded that for most handwriting types, the space provided on the paper is sufficient to answer all questions. The quality of some candidates' hand writing was also problematic in a number of cases.

Comments on Individual Questions

Q1 Most candidates gained marks for this question. A number of candidates gave a definitive time frame (6 months) which was not credited.

Q2 This question was generally answered well. Some candidates listed 2 separate points rather than describing the difference.

Q3 Very few candidates were able to answer this question correctly. Most stated that "processing happens one at a time" rather than mentioning the concept of record locking/release. Many more candidates were able to successfully give reasons why batch processing should be used.

Q4 Answered well in the majority of cases. Some candidates gave answers regarding an inability to monitor the workstation which were incorrect. Others repeated virus/backup/software answers.

Q5a Most candidates successfully compared rather than giving individual points.

Q5b A significant number of candidates confused phased and pilot for this question.

Q6 Usually answered well with at least 2 descriptions given. Some candidates simply produces a list of services available on a TV network.

Q7 Generally well answered. A small minority of candidates focused on limitations to the company rather than the employee.

Q8 Where candidates had read the question correctly, full marks were usually awarded. A number of candidates described the components of an expert system, rather than applications of an expert system.

Q9 Some candidates were able to correctly identify the entities. A smaller number of candidates were able to identify the relationships between the entities correctly. Some candidates did not produce an ER diagram but listed individual entities.

Q10a Most candidates were able to explain one reason, fewer were able to fully explain a second reason.

Q10b The majority of candidates were able to identify issues, but many failed to fully explain the issues raised.

Q11a Most candidates were able to correctly identify the term bandwidth. Others should ensure they have fully learnt key definitions before sitting the examination.

Q11b Most candidates were able to answer this section correctly and show an understanding of the topic. A significant number of candidates provided the answer "Rank Cable" in b(i).

Q11c Candidates were able to answer this question well showing an understanding of the advantages of networking.

Q11d Many candidates did not understand how a switch worked. Those that did were not able to use technical terms correctly.

Q11e Most candidates answered this question well, describing limitations to wireless networking for the surgery.

Q11f Some candidates did not compare both technologies. Those that did scored well for this question.

Q12a Most answered this well.

Q12b Those candidates that attempted this question showed a limited understanding of key database terms and in particular, database partitioning. Centres are reminded that candidates should study each of the topics in the specification in depth in preparation for the examination.

Q13 Most candidates were able to give a valid reason for an internet services provider's fault helpline using an expert system.

Q14 Most candidates were able to identify the causes of the problem, but many were unable to identify the name of the problem.

Q15 This question was usually answered well, with most candidates able to explain concepts correctly. Marks were occasionally lost for describing general design principles, rather than those to do with the topic.

Q16 A noticeable improvement in the quality of answers to these types of question. Many candidates were able to identify suitable external change and at least describe how this change would affect the surgery. Some candidates discussed hardware and software changes rather than external change. The quality of handwriting for some candidates was poor.

Q17 As for question 16. Most candidates were able to discuss hardware/software changes that may affect the surgery. Candidates should be reminded that hardware/software developments should be recent; the fax machine is probably not a suitable item for discussion.

G064 ICT Project

General Comments

There was a further increase in the number of centres using the OCR repository to upload candidates' work and it was good to see many more using the correct entry code this session.

There was a noticeable element of generous marking for some fairly simplistic projects this session which was disappointing and often indicated that many centres had not heeded advice in previous reports to centres and principal moderator reports.

It was also disappointing to see a number of fairly formulaic projects including some which made much use of ready made projects and project guides available for purchase. Centres should beware of making heavy use of these or allowing their candidates to do so as to do so is treading a fine line between getting acceptable assistance and malpractice.

Section a

The planning of interview questions continues to be over-marked by a number of centres who fail to consider whether the questions being asked are really sufficient to produce the analysis and requirements specifications which are written up later.

Section b

Designs were quite pleasing on the whole during this series; indicating that centres now clearly understand what is required and they are confident using the range of marks available.

Despite this being a comment in all previous Principal Moderator reports for this unit, it is still the case that candidates are not developing effective Project Plans on the whole. The project plan is a tool for the software developer to ensure tasks are allocated a suitable time frame, taking into consideration predecessor and successor tasks. Iteration, customer feedback and lead and lag time are vital components and candidates need to be taught how to do this. The project plan is not a plan for the candidate for their project from start to finish.

Section c

There was much evidence here that centres are paying only cursory notice to the range of marks in this section and in many cases giving marks that were far too generous for the work produced. There was still little evidence that centres understood the two marks available for testing during development and that the HCI needed to be appropriately annotated.

Section d

Once again, the user guides were well presented, contained many excellent features and were accurately marked.

Section e

Evaluations ranged between those with genuine client feedback which enabled them to write about any shortfalls and desirable extensions in a much more comprehensive way and those which focused on the mechanics of writing the project rather than the success of the solution.

OCR (Oxford Cambridge and RSA Examinations)
1 Hills Road
Cambridge
CB1 2EU

OCR Customer Contact Centre

Education and Learning
Telephone: 01223 553998
Facsimile: 01223 552627
Email: general.qualifications@ocr.org.uk

www.ocr.org.uk

For staff training purposes and as part of our quality assurance programme your call may be recorded or monitored

Oxford Cambridge and RSA Examinations
is a Company Limited by Guarantee
Registered in England
Registered Office; 1 Hills Road, Cambridge, CB1 2EU
Registered Company Number: 3484466
OCR is an exempt Charity

OCR (Oxford Cambridge and RSA Examinations)
Head office
Telephone: 01223 552552
Facsimile: 01223 552553