

Cambridge National

ICT

Level 1/2

Unit R001-R011: ICT Award

OCR Report to Centres

January 2013

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

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

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

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

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R001-R011 Overview

General

This was the first series for this qualification, which was available for first teaching from September 2012. Both the examined unit (R001) and moderated units (R002-R011) were available. Entries for the internally Assessed unit (R002-R011) could be submitted through the repository, postal or through visiting moderation.

At this early stage of the qualification there was some evidence that many candidates were not thoroughly prepared for the assessment and that many centres had entered candidates in that knowledge, in order to learn about the assessment process and standards required.

External examination (R001)

The structure and content of the paper for this first series matched closely the format set by the sample materials.

Overall, performance suggested that candidates had been prepared for the more factual aspects of the specification, such as hardware and software devices, but the wider aspects, such as legal considerations, had been less of a focus. Whilst candidates were, in the main, able to correctly identify, for example, 'printer' as an acceptable answer for Q2 (b), they were less able to describe or apply some of the wider concepts. Furthermore, while there was some good evidence that candidates were able to contextualise some answers, this ability was not displayed across the paper and the context for some questions was either misinterpreted, or ignored. However, when the fact that this paper was sat after less than four months of study is considered, this level of performance is, to some extent, justified.

Centres are reminded that they should cover the specification content for the unit and then, having done so, spend some time preparing for the examination by using the areas for suggested study given in the pre-release materials. This should prepare candidates to answer the whole of the paper with sufficient understanding and depth.

Comments on the individual questions

Question 1

This question was intended to be accessible to candidates working at all levels, covering basic ICT terminology. Parts (a) and (b) were answered well by the vast majority of candidates, and part (c), although offering slightly more challenge, was generally completed well. The majority of candidates had clearly been well prepared in the basics of input and output devices, as well as file types. Many candidates were able to give good answers to part (d), but, overall, it was noticeable that 1(d)(i) and 1(d)(ii) did provide more of a challenge, with many candidates failing to give clear a answer to part (i) of the question. Centres are advised that 'USB', for example, is not a sufficiently clear answer in response to a question in an ICT paper about storage devices.

Question 2

This question started well, with most candidates achieving marks for parts (a) and (b). However, for part (c), some candidates failed to identify two items of information that would be needed to uniquely identify a song. For example, neither the person who wrote the song nor the genre would necessarily correctly identify the version that the audience required. Question 2(d), however, did produce some good answers that showed that many candidates were able to apply their understanding of the use of data capture forms to a specific context.

Many responses to Q2 (e) suggested that candidates had not read the question properly. The focus of the question was clearly on an action that Steve could take. However, in the vast majority of cases, candidates gave answers that described what the audience could do, and, consequently, these candidates were unable to gain full marks for this question.

Question 3

This question highlighted some very real gaps in the knowledge of candidates. Whilst most candidates had some idea of what was meant by the Copyright Act, many were unable to give anything but a simple description of one or two actions that could be taken to avoid contravening the Act.

Question 4

Questions 4 (a) and (b) focussed on the use of wired and wireless technology and the efficiency of each. These questions brought out some good answers, with the best being given in context.

Question 5

For this question as with Q2e, candidates had apparently failed to read the question fully, in that many candidates either gave answers that were not applicable to the scenario, or which simply did not address the issue. The specific focus of the question was how a graphic could be manipulated in order to make it suitable for use on a website. Many candidates were able to give one method by which the graphic could be manipulated and why, but few were able to give a second answer. In other cases, candidates focussed on the website aspect of the question, and did not include any reference to manipulating graphics. Some candidates gave over-general answers such as 'edit it', which gained no marks.

Question 6

This question asked candidates to consider the use of online calendars by the organisation, specifying both the day-to-day running of the organisation and the need to avoid cancellations. Candidates were asked specifically to consider features offered by online calendars. Consequently there was a wide range of issues available for consideration. Although almost all candidates attempted this question, many failed to address all aspects of the question, with some merely focussing on avoidance of cancellations or on general day-to-day organisation, while others wrote about on online calendars in a general way and not the features therein. Questions that require candidates to develop a balanced argument or discussion are a feature of this paper and centres are advised to provide candidates with opportunities to practise these further.

Question 7

This question required candidates to explain why spreadsheet software might be used for a specific purpose. There were some good answers here, but, as may be expected from the relatively short time over which candidates have prepared for the examination, these were relatively few in number. Many candidates gave extremely vague answers such as 'it is easy' or 'it is well organised', which were insufficient to gain credit. Where candidates are asked to give explanations of why a particular piece of software might be used, answers need to be both technical and in greater depth than was the case for many candidates in this examination.

Question 8

The majority of candidates were aware that the pertinent act was the Data Protection Act. However, many then missed the differing contexts of questions 8(b) and (c).

Moderated units (R002 – R011)

General

Entries were received for all units from R002 to R009. Only units R010 and R011 received no entries for this first session. The majority of entries were for R002, R005 and R007.

Attention is drawn to the Appendices within the specification document. These provide guidance on the use of witness statements, the types of electronic files that can be submitted for postal/repository moderation and a glossary of terms used in the assessment grids for each unit. Where centres choose visiting moderation there is no restriction on file types as the centre provides the resources needed to view the files. Although html files are not specifically mentioned in Appendix C they meet the general requirement – 'open file formats or proprietary formats for which a downloadable reader or player is available'. If centres are unclear about the acceptability of any particular file format they can gain clarification by emailing general.gualifications@ocr.org.uk.

Submission of sample to moderator

Once the marks have been submitted to OCR a request for a sample of work is sent by email. For postal and repository options the requested work must be sent/uploaded within 3 days of receipt of this email. Some centres samples arrived late this series; centres are asked to send requested portfolios samples promptly to their moderators. Where centres have chosen moderation by visit, the moderator will contact the centre to arrange a date but the visit could occur at any time during the moderation period so centres need to ensure their requested sample can be made available within a similar time frame if necessary. Some centres were disappointed that they could not specify when they wanted the visit to take place, but within the short moderation window this is not possible.

Presentation of portfolios

Centres should also follow the guidance in section 4.3.1 of the specification document, which clearly lists the information that should be included on the cover sheet for each portfolio. It is important that all portfolios are always labelled with centre number/name and candidate number and in some cases this series portfolios did not have the candidates' full names. OCR provides Unit Recording Sheets (URS) and these should be used for this purpose, with annotations added to give reasons for assessment decisions made.

Where centres secured paper portfolios by treasury tags, according to the guidance in section 4.3.1 this was helpful. Loose sheets, whether or not they are presented in envelope folders, bulky folders, plastic wallets and presentation files that do not allow pages to be opened out fully should not be used.

Evidence

Where clear evidence was provided for all criteria credited by the centre, moderation generally endorsed the mark awarded. The evidence, for postal and visiting moderation, can be in a variety of formats and centres are recommended to make electronic evidence available, particularly where candidates are creating products such as spreadsheets, databases, multimedia products/ games etc. For postal moderation these can easily be sent on CD/DVD or memory (USB) stick. Where such files were provided this was helpful. It is important to check that these files are the most recent versions, ie, the version that has been marked by the centre. In some cases moderators were unable to confirm centre marks because no evidence was provided to back up claims for one or more criteria.

Some centres chose to supplement printed/electronic evidence with witness statements. Where these detailed exactly what had been witnessed rather than simply affirming that particular marking criteria had been met to comply with the requirements these were helpful.

Some candidates produced screenshot evidence detailing every stage in the completion of tasks. This is not required, so long as the evidence shows what has been achieved and (where the criteria require this) what tools have been used.

Where centres provided guidance to the moderator to help find the item(s) of evidence that had been taken into consideration for each LO this was invaluable. For paper-based portfolios this was generally page numbers, for which space is provided on the Unit Recording Sheets. Where some evidence was electronic then centres often provided file names and, where there were many files, information to the moderator about which files to open andin which order for each LO. The best organised repository work combined documentation into a single pdf file, provided a hyperlinked index file and/or used filenames which clearly showed the order in which files were to be opened.

In order that moderation process can be completed reliably and valid it is essential that all evidence can be clearly read by the moderator. In some cases screenshots were too small and/or printed in draft quality so that the essential details could not be read. Similarly, printouts of PowerPoint slides/spreadsheets which provided inadequate colour contrast and/or were too small for the text to be read caused problems for moderators. If evidence cannot be clearly read this may result in disagreement with centre marks.

Assignments

Whilst some excellent work was seen, a significant number of centres submitted work that had clearly been prepared, at least in part, for a different qualification. It is a requirement of this qualification that assessed work must be carried out through following one of the OCR Model Assignments, which can be downloaded from the OCR website.

In the case of R002 it should be noted that the Little Theatre Company assignment is provided for teaching and learning purposes only and may not be used for summative assessment. Some contextualisation of the assignments is permitted but the tasks cannot be changed. The nature of the tasks and data files severely limits the extent of any contextualisation that is possible for units R002, R003 and R004. Whilst more adaptations to the scenario/brief are possible for the remaining assignments, the tasks must remain unchanged and additional guidance may not be provided other than clarifications of what a task or marking criterion means or general guidance such as reminders about producing evidence. The extent of permitted modifications is detailed within the Tutor Notes for each Model Assignment. Where any contextualisation/ amendment has been made by a centre to the OCR Model Assignment it is important that a complete copy of the assignment used by candidates is made available to the moderator.

It is likely that the Model Assignments currently available on the OCR website will remain live for the life of the qualification and more will be added in the coming year. OCR will provide 12 months notice if any model assignment is to be withdrawn for use.

Authentication

It is important that centres send the Centre Authentication Statement (CCS160) to the moderator, which should be sent with the mark sheet (MS1 or equivalent). Some centres also provided individual candidate statements. Centres are advised to follow the guidance in section 7.4 of the Cambridge Nationals Admin Guide. Centres must obtain a signed authentication statement from each candidate before they sign the CCS160 form. However, individual candidate statements should be stored in the centre with only the CCS160 forwarded to the moderator, with the marks, before the sample request is received.

It is essential that centres follow the JCQ Instructions for Conducting Coursework, a copy of which should have been forwarded by the centre examinations officer to each subject leader. In particular this clarifies what can be considered to be the candidates' own unaided work. Worksheets/writing frames and/or additional instructions/worksheets and/or providing formative feedback whilst the coursework is being produced constitute help additional to that which is allowed by the qualification and any such help must be considered when awarding marks, and recorded on the unit recording sheet appropriately. The JCQ document also confirms that where documentation is word-processed it should contain the candidate's name in the header or footer.

If guidance and/or feedback over and above that which is permitted is given, in contradiction to the JCQ instructions, this must be documented and taken into account when assessing, so that candidates are not credited with achievement for which they have been given such support. Some confusion is apparent between formative and summative assessment. Whilst formative assessment is integral to teaching and learning and requires regular feedback, summative assessment is designed to test what candidates have learned during this initial process and specific feedback to help candidates achieve higher marks may not be given. It is not expected that candidates will attempt any of the Model Assignment tasks until they have studied the unit content and formative assessment suggests that they are ready to undertake the final assessed assignment. Whilst some revision of skills might be appropriate at times during assessment, such revision must be of a sufficiently general nature as not to guide candidates in any way about methods of tackling assessment tasks.

In some areas of assessment, eg R002 LO4 and R007 LO1, some level of guidance/support is covered within the marking criteria. Some centres provided clear evidence, in the form of formal witness statements or clear statements on the Unit Recording Sheet, to support their decisions on this criterion, as required.

Assessment standards

While many centres' assessment was considered sufficiently accurate to confirm marks awarded, in some cases marks had to be adjusted because centres were either too harsh or too lenient. Where the work fully meets a description for a mark band then the highest mark within that band can be awarded. However, if an aspect is missing or only partially met then this highest mark should not be awarded. When marking work, consideration must be given to the tasks within the Model Assignment, which represent client needs, the subject content from the unit specification, which clarifies the range/depth of knowledge, understanding and skills which candidates should have acquired during the course, also the clarification of key words provided in the glossary in Appendix D of the specification document. Of particular note is the fact that the glossary defines the expectation for terms such as 'limited', 'some', 'most', 'sound', 'detailed' and 'thorough'.

Some centres had devised their own algorithms to try to calculate marks for individual LOs from marks allocated to individual criteria. Such methods should not be used – assessors should view the work presented holistically and make a professional judgement about which set of statements are the best fit for the work presented.

Comments on the Units

R002

Candidates were often credited over-generously for filing structures that were adequate in the context of the assignment but which showed little understanding of how files need to be stored for easy retrieval in a business context, where there are likely to be many more files. It would be appropriate to remind candidates, throughout the assignment, of the scenario and of the role that they have been given within the business. To be considered as meeting the MB3 requirements there must be clear evidence of some file versions, also that candidates have met all of the requirements in Task 6 of the Model Assignment.

Candidates are expected to generate the email evidence from the tasks in the assignment, which should elicit signatures, out-of-office replies etc that are relevant to MStreamIT. Marks should not be awarded over-generously where generic descriptions only have been given. Many candidates produced evidence of emails that they had sent/received but this was unrelated to the tasks in the assignment. Many produced lists of email etiquette rules, some of which were clearly based on web sources, with minor changes made to the wording. Simply changing a few words does not make a piece of work a candidate's own. To be credited with a thorough awareness of email etiquette this should be evident throughout all of the evidence produced for this section.

Some candidates did not provide evidence of the criteria they had entered into search engines, which limited the marks available. To be credited with the use of advanced search pages these must be used appropriately.

The weakest area in LO1 was frequently the copyright requirement. Whilst some candidates noted whether or not items were copyrighted, with varying degrees of accuracy, few actually identified the copyright holder of any item of information found. Some candidates appeared to have been credited for simply writing down the URL, which does not meet the requirements.

Marks were frequently awarded over-generously in AO2 when candidates had met only a limited number of the user requirements in the assignment. The glossary in Appendix D of the specification document provides some guidance in interpreting the key words in the assessment criteria.

Choice of software for the data handling tasks is assessed within AO2. It was clear that in some cases guidance had been given by the centre to tell candidates what software to use. If this is done then no credit can be given for this criterion.

Many candidates did not demonstrate a good understanding of modelling within their work in Task 3. The use of spreadsheets as a model, where data can be changed and predicted outcomes obtained, is an important point to be taught within the data handling section.

It is not the intention that candidates should be over-penalised for the same errors/omissions. LO2 should be assessed using candidates' responses to data handling, whilst LO3 should be assessed using their responses to those tasks that involve communicating information; this is expected to be largely in the use of the software specified in this LO, but where candidates choose other software to create their advertising solutions then these should also be considered.

Most candidates chose to create flyers for their advertising solution but where candidates chose a more creative option this not only increased the range of file types produced but often resulted in products of a much higher quality, more appropriate for the specified purpose. It was

disappointing to note that in most centres all candidates had used the same medium for this task, suggesting some direction from the centre.

Some candidates edited the provided text before including it in their magazine adverts and many produced only simple flyers as their advertising solution, many of which promoted either the company or the top-up cards but rarely both. In such circumstances it cannot be considered that the content 'fully meets the specified requirements'.

The specification for LO4 provides a list of formatting tools that candidates should be taught and it is expected that a wide range of these tools will be evident in the work of candidates scoring highly in this area.

R003

If candidates do not provide evidence of formulas it is difficult to award any marks in LO2, as functionality cannot be assessed.

The specification lists a range of tools in LO1, many of which can be used to enhance the user-friendliness of a spreadsheet. For high marks in this section it is expected that a good range of these tools will have been used. Some candidates also made good use of macros to make their spreadsheets more user friendly.

The higher mark bands of LO1 require input messages rather than simply error messages. For the highest marks it would be expected that validation, with suitable input and error messages, will be set wherever this is appropriate. In some cases high marks were awarded but evidence for validation was limited to one cell.

Marks were sometimes over-generously awarded in MB3 of LO2, which requires the solutions to be both effective and efficient. Efficient solutions would make use of references rather than cells within formulas for discount, VAT and postage. An efficient solution would also be expected to make some good use of macros.

Whilst many candidates were able to document what their formulas did, few were able to explain why they were appropriate, giving reasons. Where candidates tried to consider alternative (and usually less effective) options they were generally more successful in explaining why their chosen solutions were appropriate.

Most candidates provided good evidence for sorting and filtering the data, with many being appropriately awarded high marks for the first section of LO3. However, the modelling tasks were often less well attempted, with few providing a range of alternative outcomes. The most common complex tool used for modelling was the Goal Seek option. Whilst this was generally well used, few candidates provided any justification for its use. Similarly, candidates' description of the results of their modelling was often a weak point.

R004

Marks were sometimes awarded over-generously in LO1 where the table structures and links were not efficient/appropriate and/or evidence of validation was limited. An effective database structure would include all fields in appropriate tables, with no duplication, linked by key fields. For the highest mark, validation rules, with appropriate error messages, should be applied to all fields where this is appropriate. To be considered 'justification', it would be expected that candidates would consider different options for validation and explain why they chose to set the rules that they did. For example, where a range check is added there is often no single 'correct' range. Many candidates simply described what they had done, with no reasons given. This barely meets the MB1 requirements.

Many candidates created effective queries, although they did not always consider which output fields would be most appropriate. The choice of output fields, formatting, layout and customisation of reports are important differentiators within LO2, as well as the complexity and appropriateness of query criteria. It is advisable to ensure candidates produce some evidence of any customisation they have carried out on reports, so that there can be no confusion with default formatting. This may be in the form of a single 'before' and 'after' printout/screenshot.

Where candidates attempted them, forms and user interfaces were often well designed and effective. The MB3 requirement to provide access to 'forms, queries and reports' from the user interface can be considered met if candidates' interfaces provide direct access to all forms and all reports, so long as there is a report for every query, as this is best practice – access to queries for day-to-day users is through the reports.

Some candidates provided a detailed testing section at the end, rather than following the guidance in the Model Assignment, which is to evidence testing throughout. This latter approach allows for more accurate assessment of genuine testing and is likely to be more meaningful to candidates. While marks can still be gained for testing tables provided in a separate section, this is not required.

R005

Although the final products created by candidates were often of a high quality, demonstrating a wide range of skills, the planning and testing were not always of the same standard and these sections were frequently marked leniently.

Marks were sometimes over-generously awarded in LO1, where candidates had not met all the requirements. At the higher levels a wide range of planning documentation, including clear plans for the product, is expected; candidates should have had experience in the use of all the planning techniques listed in the specification. For example, mood boards might lead well into identifying an appropriate house style and choosing graphic components. Many candidates failed to provide evidence of storing the components sourced and few gave more than basic reasons for choosing particular components. When showing evidence of storing components it is essential that this clearly shows the file types used. The most common comments were descriptions of where the components were going to be used rather than any reasons why those particular components were chosen. To meet the requirements of the higher mark bands re legislative constraints that apply, candidates' explanations should be specific to the components sourced and should extend beyond copyright. The specification lists the legislative areas that should be taught.

It is expected that candidates will make their own selection of applications software to create their product. In some cases it was clear that the centre had directed candidates to use a particular piece of software. Where this is the case, the requirement to choose appropriate software is not met, even at MB1.

The higher mark bands required candidates to consider the software for 'the presentation method of the design'. It is clarified here that this refers to the software needed by the user in order to view the final product.

Some candidates produced specifications which had clearly been created retrospectively, after the product had been created. This does not demonstrate any ability to plan and cannot be credited in LO1. Where appropriate success criteria were evidenced, these were specific, measurable and covered all areas listed in the specification.

Where centres provided the electronic files for candidates' final products this made moderation of LO2 more straightforward. For this LO there must be clear evidence to show the extent to which the combined components work as an interactive multimedia product, which is hard to

judge through static printouts. The marking grid refers to navigation system, effects and user interactivity, which are three distinct aspects. There was evidence of some confusion regarding these terms and centres are advised to consult the specification content for clarification of these different requirements. An effective interactive multimedia product, as required for MB3, should demonstrate some creativity.

The higher mark bands in LO3 require evidence that candidates have tested the product both while creating and post completion. This was not always clear from candidates' portfolios. Evidence of testing while creating might be in the form of a log, showing how different elements were tested as they were added, and any changes made as a result of this testing. In order to gain marks for the last section in LO3, candidates must gather feedback and analyse this, making at least limited reference to the success criteria. Some candidates gathered feedback but then simply gave their own opinion of their product, with reference to success criteria, failing to refer to their user feedback. If there is no analysis of user feedback then the requirements of even the lowest mark band are not met.

R006

Comments for R005 above, regarding specification, success criteria, choice of software, choice of components and legislation, also apply to this unit.

Candidates rarely demonstrated more than a very limited range of research methods to inform ideas. The specification lists methods that should be taught as part of the preparation for this unit. Some candidates produced designs but provided no evidence of any research that had been carried out to inform these designs.

In some cases it was not possible to see which standard and/or specialised software tools/techniques had been applied, as evidence was not provided. The specification lists tools/techniques that should be considered under these headings, although additional tools/techniques can also be credited.

LO3 was not always well evidenced, with some candidates printing out their final image but not demonstrating the choices made.

R007

Comments for R005 above, regarding specification, success criteria, choice of software, choice of components, legislation and testing, also apply to this unit. It was clear that some centres had approached this as 'the video' unit or 'the animation' unit, without allowing candidates the choice of final product to be created. Whilst it is accepted that a centre might spend more time on one type of software than others, candidates must not be directed towards any one type of product.

The higher mark bands required candidates to consider the software for 'the presentation method of the design'. It is clarified here that this refers to the software needed by the user in order to view the final product.

Where centres provided the electronic files for candidates' final products this made it easier to assess the overall quality and creativity of the final product. However, the range of editing/enhancing techniques also needs to be assessed and it was not always possible for moderators to see what techniques had been used by candidates. It is important that these are clearly evidenced. Where candidates import, for example, sound and/or video from external sources these have often already been edited, so it is essential that the moderator can see the editing that has been carried out by the candidates themselves.

Some candidates wrote extensively about different file types and this work showed varying levels of understanding with some being clearly strongly reliant upon source material. The best

work here came from candidates who clearly related the advantages and disadvantages of the different file types to the work that they were undertaking.

MB3 of LO3 requires candidates to identify re-tests. This was rarely evidenced, with some centres awarding marks over-generously here.

For units R008 and R009 there were insufficient entries to product a report. There were no entries for units 10 and 11 this series..

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