OCR
RECOGNISING ACHIEVEMENT

GCSE

Applied ICT

GCSE **1494**

Reports on the Units

January 2010

1494/R/10J

Oxford Cambridge and RSA Examinations

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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.

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CONTENTS

Applied GCSE ICT (1494)

REPORTS ON THE UNITS

Chief Examiner's Report

The number of candidates entered for all units this year was significantly fewer than in either session of 2009.

Candidates are unlikely to gain a good understanding of the subject or master the use of application software sufficiently to access the higher mark levels if time is restricted to less that the recommended minimum of four hours per week

Principal Moderator's Report

General Comments

With only seven centres entering in January 2010, it is not possible to give meaningful comments on the portfolios seen.

Therefore this report is intended to help centres for future entries rather than comment on the January 2010 entry.

All work should be presented and bound with treasury tags in the manner requested. Loose papers in pocket wallets or plastic pockets are not appropriate for moderation.

Annotation

It is important for centres to use the Unit Recording Sheets correctly, providing page numbers where evidence achieving the criteria can be found.

Some Centres give extra annotation within the coursework portfolios, this is greatly appreciated by the moderating team. Some annotation or indication where teachers are allocating marks benefits both the candidate and the moderator.

Although annotation is not essential, its use is greatly appreciated, aids the moderation teams and is an example of best practice.

Arithmetic errors

Centres often make arithmetic errors and/or have different marks on the MS1 form (the form sent to OCR to record candidates marks and used by moderators to select their sample), from the mark on the URS attached to the candidates' work.

In some cases errors are found in the addition of marks on the URS.

Before sending the MS1 form to OCR and the moderator it is important for centres to double check that the mark on the MS1 is the same as the mark allocated to the candidate on the URS of the coursework portfolios.

MS1s

When completing the MS1 forms, Centres need to ensure that the intended mark is clear on the copy to be sent to the moderator.

Centres often write on the MS1 while resting on other pages, making the whole MS1 impossible to read. If insufficient pressure is used the bottom copy may not be legible.

Centres are also reminded that where candidates are taught and assessed by more than one teacher, this must be recorded in the 'teaching group' column of the MS1.

Centre Authentication Form (CCS160)

This is now required from all Centres for each unit. Failure to send this form could delay in results being released.

Centres should send these forms to the moderator either with the MS1 or with the coursework sample.

4872 ICT Knowledge and Understanding

General Comments

This paper was attempted by candidates from a wide ability range, with a few showing a detailed understanding of a wide range of issues.

Most candidates gained at least some marks from a range of questions, covering a number of different areas of the specification. Most attempted to answer in complete sentences but there was still a problem with a minority of candidates whose answers could not be read. It is important for Centres to make clear to their candidates that where responses cannot be read by the examiner they cannot be awarded any marks. Additionally, unless the question clearly requires it, a single word is rarely enough to gain a mark.

Although there were some candidates who did not attempt every question there was no evidence that they had insufficient time – they simply left out some of the questions targeted at the highest levels. Candidates working at the lower levels tended to give very brief answers, even to the longer questions, but did sometimes gain at least one mark from these questions. The more able candidates considered a wider range of aspects in more detail, so gaining more marks.

As in previous sessions there was evidence that some candidates had learned answers from previous papers and reproduced these in response to questions on similar topics but placed in a different context. Generally, candidates who considered the context of the questions were able to give better quality answers.

Comments on Individual Questions

Q1 Most candidates answered this question well, having been taught the difference between input, output, storage devices and software
The main error was that candidates did not appreciate that the operating system is software and did not know what a magnetic card reader was.

Q2a(i) Most candidates understand the concept of records and thus answered correctly.

Q2a(ii) Most candidates understood files and gave the correct answer, although a minority answered incorrectly with either the first name or last name of one the members.

Q2b Most candidates gained at least one mark on this question, generally by identifying that the member may need to be contacted. The better candidates gave legitimate reasons for being contacted.

Q2c There are a number of advantages of storing data on a computer rather than on paper. The most popular correct answers were that backups can be made efficiently and the ease of editing data. Unfortunately, many candidates decided that it was easier to lose paper based data. Unless proper precautions have been taken, it is far easier to lose data from a computer and often in vast amounts. Some candidates missed the point of the question by referring to the ability to print out the information.

Q2d Candidates tended to answer the question well. Many pointed out that members could have the same name and the more able candidates expanded to say that the member number was unique.

Q2e Whilst candidates understood the use of backups, very few understood the reason for archiving data. Clearly the concept of archiving is not well understood.

Q3a(i) Surprisingly a significant number of candidates were not aware that the Data Protection legislation only applies to personal data.

Q3a(ii) Candidates were unaware that the Data Protection legislation now applies to both paper and electronic records.

Q3a(iii) Most candidates understood that the Centre does not need permission of the member in order to store their data.

Q3b(i) Candidates understood that information might be sent to the wrong address or came up with other legitimate reasons for ensuring that the data was accurate and kept up to date.

Q3b(ii) It was anticipated that candidates would write about validation techniques. Those that did obtained good marks. Methods of ensuring that the personal data was correct such as regularly sending a letter to members for them to verify the data was likewise a reasonable answer. To check the data every time someone visits the Centre is clearly unrealistic and has not been thought through by the candidate. Often candidates referred to the Centre updating without reference to its members.

Q3c(i) Many candidates just did not write in enough depth to warrant a mark.

Q3c(ii) Almost every security or safety measure is an appropriate answer, consequently most candidates did well on this question.

Q4a The question required candidates to compare the advantages of using tables, bar charts, pie charts and line graphs to display data. Consequently an answer without any reference to these methods of displaying data is not going to get marks. Successful candidates were those who referred to a method and then thought about the advantages, especially in relation to the data supplied. The question tended to differentiate between those that understood the differences between the different methods and those that wrote generic answers.

Q4b Candidates were required to name the type of software that they would use to create a chart. Many correctly wrote ‘spreadsheet’ but those who wrote Excel were not awarded the mark as it is a trade name. They then had to describe how Serena would create a leaflet using these charts. Thus, it was expected that candidates would then write about using DTP software but some wrongly continued to write about using the spreadsheet software.

Q5a Many candidates failed to expand on their answers and therefore lost up to three marks. For example a typical answer for the benefit was ‘people will be able to see at first hand what activities take place within the Centre’ but failed to add that ‘this would then encourage them to join’.

Q5b(i) The majority of the candidates were awarded a mark for 'expertise / knowledge' and professionalism, but very few appreciated the other advantages of using a specialist company

Q5b(ii) Answers that were expected were 'For a domain name', 'For hosting'. The most able candidates gave these answers but many candidates thought that there would be a need to pay for advertising or pay for equipment. Neither of these responses gained a mark.

Q6a This question was about the benefits of using sensors. Consequently those candidates who wrote about saving money or employing less staff were not awarded any marks.

Q6b Surprisingly, only a small number of candidates gave the correct answer.

Q6c Candidates need to be aware that repeating words in the question does not gain them marks. Too many candidates answered 'computer monitoring monitors and computer control controls', which probably indicated that they did not know the difference. There were however a number of very good answers clearly showing a good understanding of monitoring and control.

Q7a What was basically a straight forward question was often poorly answered with a vague response.. If a candidate is being asked to compare then there is a need to answer precisely what is being compared.

Q7b(i) Most candidates understood the term 'Spam'.

Q7b(ii) The majority of candidates achieved one mark. Candidates who wrote about viruses were not awarded a mark. Candidates needed to appreciate that not all spam contains viruses.

Q7b(iii) The more able candidates, probably from their own experiences, gained the two marks by realising that spam filters do not filter out all spam and sometimes filter out 'genuine' emails. Others stated that spam filters, filter out all spam, for no marks.

Q7c Many candidates confused the words 'files' with 'folders'. Some candidates wrote about having a database of all her files and then to search the database.

Q8a Candidates need to be instructed that if the question asks for something to be circled, then a line will in some cases be inadequate. For example if the candidate points to an item in the bulleted list then they are not pointing to the bulleted list but an item within it. Some candidates included the word 'including:' in the bulleted list or only circled the bullets and therefore lost the mark.

Q8b(i) The question asked for improvements that could be made to the layout of the flyer. Thus general reference to colour or content changes did not gain a mark. Likewise many vague answers, e.g. 'could have spaced it out more', did not gain a mark.

Q8b(ii) Comments tended to be generic to any improvement rather than understanding how their answers related to their previous answer in question 8b(i).

Q9a(i) The majority of candidates gave the correct cell reference.

Q9a(ii) The majority of candidates gave the correct cell reference although a few wrote down a number of cell references presumably in the hope that some would be correct. In this situation only the first two references were marked.

Q9b Most candidates knew that the price of the courts and the number required had to be multiplied together but many did not consider the number of hours and thus only gained one mark. Marks were lost by putting x instead of * for multiplying the content of cells together. Marks were also lost for using the SUM function inappropriately. Whilst it does work, the formula =SUM(B3*C3*C5) was only awarded one mark.

Q9c It is difficult to gain marks for this type of question if candidates do not refer to cells within the spreadsheet and write down appropriate formulae. Vague responses basically rewording the question were awarded no marks. A few very able candidates gave very good answers and clearly enjoyed this type of question.

Q10a There were many vague answers – easier/quicker. Candidates need to be made aware that these responses will not gain a mark. Many wrote about standard banking practices not appreciating that this is not a benefit of on-line banking. For example many candidates referred to the benefit of direct debits rather than the on-line banking.

Q10b This was a question about people illegally accessing bank accounts on-line, consequently the common answer ‘virus protection’ was inappropriate.

4873 Business Systems Portfolio

Quite often the systems produced by candidates are very similar, giving the impression of centre-led and designed tasks.

Strand a

The purpose of this strand is to enable candidates to learn about hardware and software by studying its use in real organisations. A significant number of candidates write about what they think organisations **should** use, rather than what they **do** use.

There is a minimum requirement for one mark, to give at least one use of ICT by each of two organisations, along with the information requirements and the hardware and application software for at least one system. Candidates often write in very general terms, failing to cover the use of hardware and software. In particular many candidates do not recognise the significance of networks in meeting the needs of the organisations, often writing only in a simplistic way about peripheral devices.

Strand b

The purpose of this strand is for candidates to learn about the standards required in professional business documents. To achieve this they should comment on standards of layout, presentation and writing styles on the documents they have collected, drawing conclusions in a word-processed report. Candidates often gain higher marks where they annotate the documents.

Strand c

The purpose of this strand is for candidates to demonstrate their mastery of applications software and their understanding of document standards from strand b. Candidates should produce documents of their own rather than copy examples they have been given. There is a requirement for these documents to be fit for purpose and audience, which means they should have very few errors and should use a standard font size and style. Documents should be spell checked and proof read.

Business cards and flyers give candidates very little scope to show their mastery of publication software and deserve marks only in the lowest band. Candidates should produce, for example, a business report combining text, graphics, charts, photographs etc, and make use of features such as text and graphic frames, columns, headers and footers, text wrap and text flow. A presentation should combine a range of different media effectively and house style implies more than just adding a logo.

Strand d

A Data Flow Diagram should show external entities, processes and data stores, with the flow of data between them. Unfortunately, many candidates produce simple flow charts, which do not meet this requirement and can only be awarded marks in the lowest mark band.

Strand e

The purpose of this strand is for candidates to be specific about what their system will do and what the desired outcomes will be. Teachers must make sure that at this early stage candidates specify a system that is not too challenging for them and that they are capable of completing.

Strand f

The purpose of this strand is for candidates to record the implementation of their system, not to give instructions on the use of the software. Those scoring high marks used cropped screenshots as part of a coherent report. In order for someone else to re-create their system candidates should provide prints of the data they have entered. Printed output is necessary evidence that implementation has been completed. If a database is set up there should be sufficient records to enable candidates to show that their system works efficiently.

Strand g

The purpose of this strand is for candidates to test and evaluate their system. Candidates gain marks for testing their system against normal, abnormal and extreme inputs. Normal data is within the expected range, extreme data is at the boundaries of the expected range and abnormal data is outside the expected range. For example, if the range is 0 to 100, 20 and 70 would be normal, 0 and 100 would be extreme, whilst -5, 200 or alphabetic data would be abnormal. For marks in the highest band candidates should evaluate their system against user requirements as well as demonstrating some improvements made as a result of testing.

Strand h

The purpose of this strand is for candidates to produce a 'User Guide' for someone to **use** the system they have created. Candidates who use annotated, cropped screen prints to produce 'quick start' guides which would allow a novice to start using the system quickly gained the highest marks. High attainment is often aided by use of user-friendly menus or switchboards in database systems.

4874 ICT Survey Portfolio

The general purpose of this unit is for candidates to use ICT for meaningful research.

Centres should not treat each strand as a separate entity – the research carried out in strand a should support the rest of the portfolio and the bibliography needs to cover all research carried out for all the strands.

Reports for strands e, f and g often fail to show evidence of in depth research, treating the subject in a very superficial manner.

As in Unit 4873, the spreadsheets and databases created by many candidates were very similar. Centres should try to encourage individuality and avoid over-direction of candidates.

Strand a

In this strand candidates must produce a bibliography of sources they use in the entire portfolio. A significant number of candidates do not list sources used in their research for strands e, f and g, which limits marks to the lowest band. Candidates should also show how well they can use the internet as a research tool. They should show that they can research available technologies, can refine those searches, mark pages for later return, and produce meaningful results which they have cross referenced for accuracy and bias. When listing web sources these should be url's for the actual pages of useful information rather than for website home pages.

Strand b

Candidates who achieve well start with clear hypotheses or aims for their survey, and this focus allows them to produce a meaningful report of their findings. Some candidates carry out purposeless searches without arriving at any conclusions from their survey.

There continues to be some confusion about multiple tables, with some Centres allowing candidates to split a single data table into two, rather than using a true one-to-many relationship. Others set up related tables but do not make use of related data, producing queries using only one of their tables. This is not meeting the criteria for the higher mark bands.

Strand c

Candidates need to show printed evidence of use of formulas and functions. Without evidence of the formulas it is not possible to assess the complexity of the spreadsheet, limiting marks to the lowest band. High marks can be gained by producing a coherent report combining sections of data tables with charts and a commentary analysing survey results.

Strand d

Candidates often create good media elements, many using sound or edited digital photographs with a few using video clips they have filmed themselves. It is important that there is clear evidence of the range of media types used, and of the creation and editing of any components. Clip art sounds and animations are basic features which do not satisfy the criteria for higher band marks.

Strand e

Marks above the lowest band in this strand can only be gained where candidates clearly identify specific groups or individuals affected by developments in ICT. Bulleted lists or brief sentences in a table structure are unlikely to encourage the explanations required by the higher mark bands.

Strand f

A need is defined as satisfying a basic requirement whilst a benefit is an advantage of meeting these requirements. For example, candidates might write about the need for communication for a particular purpose. They can then identify some of the advantages of using email for that purpose. Simply identifying and describing advantages without specifically considering the needs met limits marks to the lowest band.

Strand g

This strand concerns the consequences of limited or no access to ICT, and is commonly misinterpreted as disadvantages.

Grade Thresholds

General Certificate of Secondary Education
Applied ICT (Specification Code 1494)
January 2010 Examination Series

Unit Threshold Marks

Unit		Maximum Mark	A*	A	B	C	D	E	F	G	U
4872	Raw	100	76	68	60	52	45	38	32	26	0
	UMS	100	90	80	70	60	50	40	30	20	0
4873	Raw	50	48	43	38	34	29	24	19	14	0
	UMS	100	90	80	70	60	50	40	30	20	0
4874	Raw	50	48	43	38	34	29	24	19	14	0
	UMS	100	90	80	70	60	50	40	30	20	0

Specification Aggregation Results

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

	A* A*	AA	BB	CC	DD	EE	FF	GG	UU	Total No. of Cands
UMS	270	240	210	180	150	120	90	60	0	
Cum %	0.0	0.0	7.1	25.0	57.1	60.7	71.4	96.4	100.0	29

29 candidates were entered for aggregation this series

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

Statistics are correct at the time of publication.

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