GCE EXAMINERS' REPORTS

APPLIED ICT
AS/Advanced

JANUARY 2013

Statistical Information

The Examiner's Report may refer in general terms to statistical outcomes. Statistical information on candidates' performances in all examination components (whether internally or externally assessed) is provided when results are issued.

Annual Statistical Report

The annual Statistical Report (issued in the second half of the Autumn Term) gives overall outcomes of all examinations administered by WJEC.

APPLIED ICT

General Certificate of Education

January 2013

Advanced Subsidiary/Advanced

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Chief Examiner AS: Martin Gillies
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Unit Statistics

ADVANCED SUBSIDIARY

Grade Boundary Unit	Max Mark	A	B	C	D	E
AICT 1	100	75	65	55	46	37
AICT 3	100	78	67	56	46	36

N.B. The marks given above are raw marks and not uniform marks.

ADVANCED

Grade Boundary Unit	Max Mark	A*	A	B	C	D	E
AICT 5	100	88	78	68	58	49	40

AICT 1 – eBusiness

General Comments

The AICT 1 paper is divided into two parts; Part A comprising a one hour written examination paper and Part B, a series of tasks to be carried out in a practical two hour examination.

The paper for Part A was provided to centres in an on-screen format that requires candidates to enter their responses into text boxes with one screen per question. Where centres were not able to access the on-screen examination, traditional paper-based examination papers were used. These papers required candidates to write their responses in the spaces on the paper. Neither examination format appeared to cause problems from the candidate's perspective nor did the format appear to influence candidate outcomes.

In many cases candidates provided brief responses to questions that carried a significant number of marks. Candidates should note the wording of the questions, which is designed to suggest the level of the detail required in candidates' responses by the use of words or phrases such as 'state', 'describe briefly', 'explain' or 'describe in detail'.

Centres and candidates are reminded of the value of giving examples to clarify an answer and in some cases to provide additional evidence of a candidate's understanding of the topic of the question. A good example, even if not specifically requested, can often help to secure a mark when a description is lacking clarity or detail.

Some candidates lost marks by not relating their responses to the context of the question or the given scenario. Candidates should be aware that this is an applied qualification and the examination is designed to test their ability to put their knowledge of ICT into the given situations. If a question describes a specific context, and invites the candidates to refer to the context, then marks will be lost if this is not done.

The standard of language used was generally good, though some weaker candidates lost marks through the apparent inability to express themselves clearly.

In Part B of the examination, candidates were required to carry out a series of on-screen practical tasks set in the same context as Part A of the examination. Many candidates were able to demonstrate good practical skills in the use of database, spreadsheet and word processing software. However the ability of a significant minority of candidates to use database and spreadsheet software was concerning as they would have all been required to carry out the coursework tasks for AICT 2 as part of their AS studies.

Part A – written paper (40 marks)

Q.1 (a) *Name two methods that the marketing department could use to gather information from primary sources.*

Those candidates who had been well prepared had few problems with this question which should have provided all candidates with a comfortable introduction to the paper. However many candidates named primary sources rather than methods that could be used to gather information from primary sources. A significant number of candidates described methods of retrieving information from secondary sources.

(b) *Describe two advantages of using primary sources rather than secondary sources to carry out this research.*

Many candidates were able to identify at least one advantage. However a significant number of candidates again confused sources and methods while others continued to talk about secondary sources.

Q.2 *Name two types of software application normally included in an office package that the marketing department could use to analyse the data collected and present the findings of their research. You should also describe the features that make them suitable for the task.*

Most candidates were able to identify spreadsheet applications and describe features that could be used to analyse the data. However many candidates missed the significance of the need to present the data and went on to describe database applications rather than either word processing packages or presentation software to present the findings.

Q.3 *Describe how Fun to Run could use project management software to help organize a half-marathon event.*

The majority of candidates appeared to have very little knowledge of the nature of project management software or how it could be used to organise the events. Many candidates provided descriptions of typical office packages of applications and talked about producing promotional materials. This topic is included in the specification and candidates should be prepared to be able to provide informed responses to similar questions.

Q.4 *Describe the features of a database package that would be helpful in handling runners' personal information for half-marathon events.*

Most candidates were able to identify and describe features of a database but many missed the context of the question and talked about issues other than handling the runners' personal information. This is an applied qualification and candidates must be careful that they apply their understanding to the given context. In this case better candidates talked about using relationships to maintain the integrity of data or the production of lists of runners for a particular race.

Q.5 *One principle of the DPA states that "Data shall be processed fairly and lawfully". State two other principles of the DPA and describe measures that FUN to Run should take to ensure that they comply with each of these principles.*

Few candidates were able to identify two other principles of the DPA correctly. Many split principles. For example answering that data must be accurate for the first and that data must be up to date for the second principle. Other candidates attempted to reword the principles and ended up with two statements relating to the security of data. Where candidates were able to identify the principles correctly they were usually able to identify measures that should be taken by the organisation.

Q.6 *Describe two methods that could be used to back up data held by Fun to Run.*

This question was not done well by many candidates. It is important that candidates recognise that organisations hold large amounts of data and that a backup to an usb flash drive or a CD/DVD is not appropriate.

Q.7 *Describe the features of a spreadsheet package that would help Fun to Run record the money raised by each runner, calculate the totals for each charity and predict income for future events.*

Most candidates were able to identify features of a spreadsheet package that could be used to carry out the required calculations. However few candidates were able to describe how a spreadsheet model could be used to test hypotheses allowing the organisation to make predictions about future events.

Q.8 *Describe the features available in a standard email package and explain why the feature would be an advantage to Fun to Run.*

This question was not well done. Too many candidates were unfamiliar with the features of an email application beyond the ability to send attachments. Many candidates confused the ability to send to multiple recipients with a mail merge procedure. Very few candidates were able to talk about the application is technical language or relate the identified features with the context of the examination paper. Centres should note the way in which the last question on the paper is marked and prepare candidates accordingly.

Part B – Practical tasks (60 marks)

Many candidates were able to access marks for the practical tasks. However, some candidates appeared to have difficulties in carrying out even the most basic tasks and many were unfamiliar with the standard documents and word processing skills required to complete tasks 1(b) and 2(b)

Task 1 – Administration

(a)   *Fun to Run has details of Runners and Races. These details now need to be organised.*

Most candidates were able to recognise the need to split the data into a runners and a race table. Some candidates used action queries to achieve this, gaining additional credit for their work. If candidates are using action queries it is important that they save these queries to gain these marks. Most candidates attempted to create relationships between their tables. Some candidates failed to recognise the need for the use of primary keys for both tables. Many candidates failed to recognise the relationship between the tables and added additional key fields or tried to create incorrect relationships. Few candidates gained all marks available for validation with many failing to follow the instruction to validate only fields in the Race table.

(b)   *Fun to Run would like to send out personalised letters to those people who have indicated that they would like to purchase merchandise.*

A surprising number of candidates did not appear to be familiar with the layout of a standard business letter. The specification includes a list of business documents. Many candidates were able to included mail merged content in the letter but few formatted this information in an appropriate manner. Some candidates were able to use the appropriate feature to set the required tabs but very few recognised the need to set a decimal tab at 11.5cm.

(c)   *Fun to Run needs to give the stewards a list of the Runners and estimated running times for each race taking place in the month of February.*

Some candidates had difficulties in creating the required query and seemed unfamiliar with the use of the 'Between' criteria to obtain races run in February. Similar questions have appeared on papers in the past and candidates should be prepared to be able to carry out this type of query. Some candidates were able to produce well-formatted lists using the report facilities of their software. However many candidates struggled to insert appropriate page breaks or to group the data to produce a well-formatted layout.

Task 2 – Marketing

(a)   *You are required to produce a prototype website for Fun to Run.*

Most candidates were able create the two pages required by the question and insert the given titles. Many candidates inserted the required logo but fewer were able to insert the slogan which was in the form of a .swf file. Many candidates appeared to struggle to create the links between the two pages. Again many candidates were not able to create the required rollover image. Some credit was given to candidates who inserted both images on the correct page. Credit was given for the layout of the web pages. A significant minority of candidates appeared to have given little thought to the appearance of the completed website. There was little evidence of consistency between the two pages in terms of background colour, font styles or layout.

(b)   *Evans James wants to present your recommendations for future developments in a memorandum.*

Few candidates were able to format their documents in an appropriately as a memorandum. Most candidates were able to identify two improvements to the website although some missed the point of the question and did not base their responses on the need to identify features to allow the sale of merchandise. Where candidates had identified the meaning of the question they were able to produce well thought out responses identifying features in appropriate technical language.

AICT 3 – eWare

General Comments

In most cases candidates had successfully addressed the requirements of the controlled assignment 'ClassOne Nursery' and produced the required outcomes completed to an appropriate standard for AS level. As with the other units of the practitioner qualification the entry for this series was relatively low.

Task 1 - Preliminary research

Most candidates presented evidence of useful Internet based research that addressed the software and hardware requirements indicated in the scenario. The more successful candidates included summaries of the information gathered.

For future series candidates should be reminded to acknowledge their sources, as relatively few included any form of bibliography.

Task 2 – Specification

Most candidates produced technical specifications that covered the hardware requirements indicated in the scenario. Less successful candidates tended to rely on manufacturers' technical specifications with little editing and little contextualisation.

Some examples demonstrated a lack of understanding, by including devices that were wrongly described, or unnecessary. Common errors included the specification of low cost printers that would be suitable only for home use and of standard desktop PCs rather than devices with touch screens and/or appropriate input devices for such young children.

Successful candidates included alternative specifications with some discussion on relative merits and disadvantages, leading to well-reasoned final recommendations.

The most successful candidates related their choices to their interpretation of the nursery's requirements and gave appropriate software equal consideration, covering operating systems and the specialised software applications for the young children as indicated by the scenario, in addition to the standard office applications that a business is likely to require.

Most candidates included quotations based on retail prices obtained from online catalogues. As in previous series some candidates were reluctant to use the full budget, seeking to save money and basing their final selections on cost, rather than performance.

Task 3 – Enhancements

The scenario should guide candidates towards a selected area for further enhancement, in this case additional input devices for the young children. It was expected that candidates would have carried out research into suitable devices such as microscopes, microphones and speech buttons. A minority of candidates failed to identify this area and concentrated on general enhancements to their specifications.

Task 4 - Configuration

Candidates were required to carry out five separate configuration tasks using the simulation software provided and use screen-prints to evidence the configuration work. Candidates were also asked to justify their selections for the various settings.

Most candidates scored high marks in this section and carried out the required configurations correctly. Where marks were lost this tended to be the result of very brief, or missing, justifications.

Task 5 - Customisation

Candidates were required to create three automated routines or macros to help handle information relating to the children's attendance figures and to provide evidence of their routines in the form of annotated code listings. No other evidence was required.

The majority of candidates produced the required listings although the standard of annotations was variable

Tasks 6 and 7- Standard ways of working

Candidates were asked to produce documentation (a set of instructions and an information sheet) on standard ways of working to suit two distinct purposes. The intention of this section is to assess the candidates' knowledge of standard ways of working, as described in section 3.8 of the specification. The specific topics are efficient storage and retrieval of data and safety, integrity and confidentiality of data.

Most candidates were able to offer guidance of the storage and retrieval of data. The information sheets also provided useful information and some well formatted documents with well summarised information were seen.

Task 8 –User support

Candidates were required to create three flow charts, each designed to help trouble shoot a common ICT problem. Most candidates included three charts based on a sequence of questions with a reasonably logical flow between alternative responses. The most successful candidates treated each problem individually and included charts with questions of increasing technical content leading to the problem being solved or reference to further technical support.

Task 9 - Review

Candidates were requested to relate their technical specifications to the client's requirements and consider the value for money they had achieved.

Candidates scoring high marks presented evaluative comments about their work without lengthy narratives on process. They identified changes of approach likely to lead to improvement of performance and / or outcomes and avoided vague suggestions about organisation of time and making greater effort.

Task 10 - Client Information Pack

Candidates are required to link their work to a given template, or Project Information Pack. The use of the template is intended to help candidates ensure that all work is completed and that the finished versions of the work for each task are presented to the examiner. It should be noted however, that if work is not linked to the cover sheet the examiner will look for work in the folders and will give credit for all work found.

Most candidates linked all their evidence to the given template, adding links as required to suit their files and thereby gained full marks for the task. A minority of candidates had re-organised their work folders and files after linking to the templates and therefore did not provide a working information pack.

AICT 5 – eProject

Introduction

It has been very encouraging, once again, to see candidates using industry standard project management software in a realistic environment and, during this examination series, there were many examples of excellent use of this software. Similarly, the standard of the spreadsheet models was, on the whole, very high and it was pleasing to see how candidates had developed skills from the AS part of this qualification.

Outside Controlled Conditions

As in previous examination series, there is still some concern about the way in which some members of the group engage with the main software titles in this unit during the group work time. In particular, some candidates in some groups do not appear to have involved themselves fully in the development of the prototype spreadsheet during the group work stage and consequently have difficulty amending the model in light of the Revised Client Requirements during the controlled time. Similarly, some candidates in some groups do not fully understand the project planning software so find it difficult to use this in the controlled conditions. Whilst it is normal practice for different members of the group to have specific responsibilities during the group work stage (eg taking a lead in developing the spreadsheet model or taking a lead in developing the initial plan), it is essential that all members of the group have input into the development of all aspects of the group work.

Problem Definition

Candidates are expected to redefine the scope of the *whole* problem in light of Revised Client Requirements and reappraise the impact of these requirements on the *whole* project. In the worst examples, candidates simply added the Revised Client Requirements to their individual Problem Definition almost word for word without considering the wider implications of these changes.

Any assumptions made by the candidate must be clearly explained. A number of aims are clearly identified in the scenario, but further aims could be identified and developed based on the research undertaken at the group work stage.

Project Organisation

The only requirement of this unit in this section is to use project management software to plan the 15 hours controlled time. It is not necessary for candidates to show evidence of project planning of the group work stage. Whilst it is acknowledged that this may be good practice and that some centres may use this as part of their teaching of the project management software, this must not be done at the expense of the detailed planning that is required for the 15 hours. In some cases, candidates used the project management software well during the group work stage but then used it only superficially during the controlled time. Centres must be clear that, even though the plan may look detailed, it is only the planning which goes into the 15 hours that can be counted towards the mark for this section and that the project management outside the controlled time must be ignored. Candidates must be encouraged to make good use the project management software and we would expect to see the scenario broken down into it's main tasks and then subtasks. Appropriate time should be apportioned to these subtasks within the 15 hour constraint and candidates should build in contingency time and opportunities for checkpoints where they will reflect on their progress. Candidates should use other features such as predecessors to establish a critical path where appropriate, resources and notes to communicate progress.

Candidates are expected to produce a number of versions of their plan and to communicate their progress throughout the 15 hours controlled time. Candidates should be encouraged to use the Notes feature of the software to explain their decision making process throughout the 15 hours. For example, if a subtask took longer than expected, they should explain how they will make up that time by reducing the amount of time spent on some other subtasks, or by using any of the contingency time that had been built into the plan. Similarly, if a subtask took less time than expected, they should describe how they will spend the time that has been gained on other aspects of their work.

The Project

It is expected that candidates look to fully embed the changes outlined in the Revised Client Requirements into their spreadsheet models. It is most likely that this will involve changes to a number of worksheets within the model as well as amending macros and calculations.

Review

The importance of quality evaluation and review cannot be overstated. Some candidates produced very long reviews which were mainly based around comments on screen dumps resulting in very superficial reviews. In some cases, the review was more of a reflective 'diary' of what happened during the 15 hour controlled conditions.

Candidates must ensure that they devote sufficient time to this section and that they engage in proper evaluative writing of the length and detail expected at A2 level.

Presentation

In most cases, candidates produced excellent ePortfolios which were used effectively to demonstrate evidence. In some cases, however, high marks were awarded, even though there were some broken links which necessitated browsing through the folder structures. Centres need to take care in ensuring that the links within the ePortfolio are not pointing to networked drives and that the ePortfolio works as expected after burning it to the disk. Candidates must be encouraged to use the given ePortfolio template and the emphasis should be on the efficient demonstration of evidence linked in an appropriate format, rather than the appearance of the ePortfolio itself. Candidates can, of course, expand the given ePortfolio template if necessary to afford them every opportunity to demonstrate the work that they have undertaken for this unit.

Candidates should be discouraged from password protecting documents that are linked from their ePortfolios.