GCE EXAMINERS' REPORTS

APPLIED ICT
AS/Advanced

SUMMER 2011

Statistical Information

This booklet contains summary details for each unit including the maximum mark available and grade ranges.

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

Summer 2011

Advanced Subsidiary/Advanced

Chair of Examiners: Warren Davies

Chief Examiner AS: Martin Gillies

Chief Examiner A2:   Jennifer Gillies

Statistical Information

This booklet contains summary details for each unit: number entered; maximum mark available; mean mark achieved; grade ranges. *N.B. These refer to 'raw marks' used in the initial assessment, rather than to the uniform marks reported 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.

ADVANCED SUBSIDIARY
Grade Boundary

Unit	Max Mark	A	B	C	D	E
AICT 1	100	74	64	55	46	37
4AICT 2	100	80	70	0	50	40
AICT 3	100	78	67	56	45	34
AICT 4	100	77	66	55	45	35

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	89	79	68	58	48	38
AICT 6	100	90	80	70	60	50	40
AICT 7	100	90	80	70	60	50	40
AICT 8	100	90	80	69	58	48	38
AICT 9	100	90	80	70	60	50	40

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

AICT 1 – eBusiness

General remarks

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 web authoring 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)

Question 1

(a)   What type of organisation best describes JET?

The specification includes a list of types of organisations and candidates should have used this content to respond to the question. A disappointing number of candidates seemed to be unfamiliar with the specification content.

(b)   Using a relevant example, distinguish between data and information

Many candidates were able to define data but few used examples to illustrate the difference between data and information.

Question 2

*State **two** principles (other than the one contained in the email) of the Data Protection Act and explain the implication of each on JET's practices.*

Some candidates scored well in this question and were able to state two principles of the DPA and relate them to the working practices of a business such as JET.

However many candidates attempted to reword the principles and tended to describe the need to keep data secure for both responses. A significant minority of candidates were not able to relate the principles to working practices.

Question 3

*Name **two** relevant features of a spreadsheet package. Describe how the Finance department could use these features in their financial models.*

The majority of candidates were able to identify two features of spreadsheet packages. Many were able to describe a business related use of spreadsheets but fewer were able to relate to the context of the question and describe a use for financial modelling.

Question 4

*Explain, using relevant examples, how JET could use the management information system (MIS) to help improve the **cruise business.***

The question was not well answered. Few candidates appeared know what a management information system is and even fewer were able to explain how such a system could be used to improve JET's business. Many candidates incorrectly described the use of Office applications.

Question 5

*(a)   Identify **two** secondary sources that could be used for market research into Gap Year travel.*

Again, candidates could have drawn on specification content to respond to this question. Many candidates named infrastructure rather than content as a source of electronic information. Candidates should be aware the businesses are unlikely to share commercially sensitive information although published company results would be an appropriate source.

*(b)   Describe **two** advantages of using secondary sources rather than primary sources for market research into Gap Year travel.*

Many candidates were able to identify the time and cost saving advantages of the use of secondary sources. A surprising number of candidates are still not clear on the difference between secondary and primary sources of information although similar questions have appeared on previous examination papers.

Question 6

Describe ways in which JET could use their website to gather information from potential Gap Year customers.

Most candidates were able to gain marks for their responses to this question. Some candidates provided very comprehensive descriptions and were awarded full marks.

Question 7

*Describe **two** tasks that could be carried out using project management software.*

Although many past papers have included questions about project management software few candidates appeared to have any knowledge of the role and functions of project management software. In some cases where candidates had been well prepared for this topic some very good responses were seen.

Question 8

Describe a range of web-based technologies, other than email, that JET could use to communicate with the travellers giving the advantages of each method of communication.

Most candidates were able to draw on their own use of web-based communication technologies to gain some marks for this question. Some well written and comprehensive responses were seen.

Part B – Practical tasks (60 marks)

Many candidates were able to access marks for the three practical tasks. However, some candidates appeared to have difficulties in carrying out even the most basic tasks and some even discussed their lack of familiarity with the software applications to be used in their evaluations.

Task 1 – Sales and Marketing

(a) *The sales and marketing department has details of **customers** and the **bookings** they have made. The details now need to be organised.*

Most candidates were able to recognise the need to split the data into a customers and a bookings table. Many candidates used action queries to achieve this, gaining additional credit for their work.

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. Few candidates gained all marks available for validation.

(b) *The sales and marketing department require an input form to view customers' details and enter their bookings*

Most candidates were able to create a form based on the Customer table and to include a sub-form to show the customer's bookings. Some candidates failed to re-size the logo appropriately. Candidates who had not been able to structure their data correctly were unable to include the required sub form.

(c) *The sales and marketing department would like to send out personalised letters to those people who have made bookings in January or February and have spent on average over £1000 per person.*

A significant number of candidates were not able to set up appropriate search criteria to find the bookings made in January and February. Many candidates had difficulties in creating the calculated field for the average spend. Similar questions have appeared on papers in the past and candidates should be prepared to be able to carry out these types of queries.

(d) *Explain why validation rules are used when creating data structures and describe the validation rules you have created for Task 1.*

Some candidates were able to access all marks available for this task and produced good explanations for the use of validation rules. Many candidates were able to describe the validation rules that they had used but had more difficulty explaining why validation rules are used.

Task 2 – Sales and Marketing

Open the Survey file and look at the worksheet and familiarise yourself with the content.

The Sales and Marketing department have carried out a 'Customer Satisfaction Survey'. This data needs to be analysed.

Most candidates were able to import the given data to a new worksheet. However many candidates struggled with the COUNTIF statements needed to summarise the data. Very few candidates were able to use the absolute cell references or named range required to ensure that the function could be replicated.

Task 3 – Sales and Marketing

a) *JET has decided to use the Internet to promote Gap Year Travel. You are required to produce a prototype website for the marketing manager.*

Most candidates were able to create the required web pages and many were able to use hyperlinks to navigate from one to the other. However many candidates used text rather than creating the buttons required by the examination paper.
Some candidates made good use of software features such as tables to structure their work. Many candidates were able to create the text boxes and submit button for the customer contact form and import the text onto the About Us page. The majority of candidates were able to create the required rollover image.

b) *Identify improvements that could be made to this prototype and present your work as a word processed document.*

This task was not well done. Too many candidates provided a description of the work they had carried out rather than identify specific suggestions for improvement.

AICT 2 eSkills

General Comments

This summer many good projects were submitted for moderation with a large number of centres marking to the correct standard. The majority of centres correctly completed the required paperwork. It would help in the moderation process if the centres assessors could complete the comment/justification part of the cover sheet and indicate the mark awarded for the spreadsheet and database separately.

SPECIFICATION

Many candidates were able to analyse the scenario and produced a working specification summarising the purpose of the project. Most were unable to give technical justification of the methods to be used in the solution as they did not have the necessary prior skills and knowledge of the database and spreadsheet software.

SYSTEM DESIGN

This section was completed to a good standard by the majority of candidates. However In some instances the design matched the completed system and seemed to have been completed retrospectively.   It is essential that the design is completed before the implementation and should not be changed to match the completed system.

IMPLEMENTATION

The quality of the database solution continues to improve with the majority of candidates producing a series of related tables and effective data entry forms. The output of some of the reports would have benefited from additional formatting to replicate the existing documentation.

There was an improvement on last year in the quality of the spreadsheet solution with the many candidates producing input forms and using validation to assist in data entry.

TESTING

Many candidates achieved good marks in this section, having evidenced testing of the systems produced, together with prototyping and obtained sufficient feedback.

DOCUMENTATION

Most candidates produced good screen-based instructions for the use of both the database and spreadsheet solutions. However, many candidates failed to produce technical documentation that provided sufficient detail to allow a competent third party to carry out maintenance of the systems.

REVIEW

This section was completed to a good standard by candidates who had produced a specification that included measurable objectives that could be used to structure the review. It was noted that some centres encouraged the use of a design and implementation log and this was useful for candidates to comment on their own performance and changes of approach.

PORTFOLIO

The majority of candidates produce good portfolios to showcase their work. However it was noted that some centres gave candidates a template hence limiting the marks that candidates can be awarded.

AICT 3 eWare

General remarks

As with the other units of the practitioner qualification the entry for this series was relatively low.

The assessment is carried out in two parts. The first part provides an opportunity for candidates to apply their knowledge of ICT systems and carry out research on hardware and software to suit given requirements.

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.

Candidates should be reminded to acknowledge their sources.

Task 2 – Specification

As in previous years 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 specified, by including devices that were wrongly described, or unnecessary. Successful candidates included alternative specifications with some discussion on relative merits and disadvantages.

Some candidates omitted to include any specification for software. The most successful candidates gave software equal consideration and covered the specialised software applications indicated in 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. Many candidates were reluctant to use the full budget, seeking to save money and basing their final selections on cost, rather than performance.

Most quotations were presented using spreadsheet software, some designed to allow consideration of alternatives. A few effective examples of quotations cross referenced by hyperlinks to the technical descriptions were seen.

Task 3 – Enhancements

The scenario will direct candidates towards a selected area for further enhancement. As in previous years most candidates failed to identify this area and concentrated on general enhancements to their specifications and therefore did not access the marks available for this task.

Task 4 – Configuration

Candidates are required to carry out five separate configuration tasks using the simulation software provided and present screen prints to evidence their work. The configuration tasks could be completed using a number of optional settings to be selected by the candidates.

Most candidates were able to complete the configuration work, produce suitable screen prints and present their work clearly. Some candidates omitted to include the required justifications or explanations of the optional settings used and therefore could not access 50% of the marks available for this task.

Task 5 – Customisation

Candidates were required to create three automated routines or macros. Two of the routines were specified, the third was to be designed by the candidate and have relevance to the given scenario. A minority of candidates included listings with minimal annotation and therefore failed to demonstrate the understanding required for high marks in this strand.

Tasks 6 and 7 – Standard ways of working

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 'Safe working', 'Ergonomics', 'Security' and 'File management. The specification lists the areas that should be covered for each topic. For this section of the assignment the most successful work was accurate, well summarised and written to be relevant to the given scenario.

Task 8 – User support

Candidates were required to create flow charts to help troubleshoot given ICT problems. Most candidates were able to produce a sequence of questions for each problem. The most successful candidates were able to develop their questions in terms of technical content and present these in a sequence with a logical flow between alternative responses, leading to the problem being solved or reference to further technical support. Less successful candidates tended to limit their questions to basic power and / or connection difficulties without developing any technical content specific to the given problem.

Task 9 – Review

Candidates are asked to relate their technical specifications to the client's requirements and consider the value for money they have achieved. They were also asked to identify changes of approach likely to lead to improvement of performance and / or outcomes.

Successful candidates presented evaluative comments about their work and were able to identify specific and realistic potential improvements. As in previous series less successful candidates presented lengthy descriptions of processes carried out and, for improvements, included only vague suggestions about organisation of time and making greater effort.

Task 10 – Client Information Pack

Candidates were required to link their work to a given template, or Client 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.

Most candidates were able to link their work as intended and therefore gained full marks for this task. A few candidates appeared to have moved their template after completing the hyperlinks and therefore did not access the marks available for this work.

AICT 4 eMobile

GENERAL COMMENTS

A larger entry of projects was seen this summer with some centres marking to the correct standard. All centres completed the required documentation correctly. It was pleasing to see such a variety of approaches within and between centres to the completion of the coursework project.

I have commented below on the work seen at moderation this year by section and have included the recommendations to candidates from previously published guidance.

REQUIREMENTS SPECIFICATION

Some centres successfully completed Requirements Specification sections whilst some centres chose a different approach in that they combined the family requirements with the Hardware and other recommendation sections. Whilst this did not necessarily restrict the candidate marks, this did make it more difficult to award the credit for both elements. Not all candidates made clear their assumptions or interpretations of the scenario. Not all candidates summarised the budgetary limitations.

Overall recommendations to candidates for this section would include:
- Use the given scenario to summarise the requirements for each member of the family – take each member of the family separately
- Use subheadings for each of the following categories: Hardware requirements; Networking requirements; Connectivity requirements and Internet requirements
- Discuss any assumptions you are making
- Include details of future requirements for the family
- Summarise the budget limitations

HARDWARE RECOMMENDATIONS

Many centres gave accurate marks for this section and it was pleasing to see the variety of options recommended for the scenario. Many candidates did prepare this evidence for the eQuote as though they were working for the organisation, however sometimes the context of the presentation of the evidence lacked the professionalism one would expect from a business organisation. Some candidates included external links to live Internet sites that would encourage the family to purchase from another provider and could also not be guaranteed to still be available at the time of moderation.

Overall recommendations to candidates for this section would include:
- Remember to put this into context – YOU are working for a company and you would like the family to purchase the items from YOU – avoid directing the family to another provider.
- Avoid copying and pasting copious amounts of detail here (focus on the necessary detail).
- Discuss the benefits and drawbacks of each option and make your recommendations.
- Include costings for each item

NETWORKING RECOMMENDATIONS

Many candidates presented some good recommendations for the networking solutions for the family and included some schematic diagrams for connections and arrangement of devices – this is very good practice for this section. It was evident that work presented from some sections focused mostly upon theoretical understanding of items covered in the specification rather than recommendations for the use and implementation of network hardware for the family. N.B. It is not necessary to repeat the networking recommendations for each member of the family should there be a household solution.

Overall recommendations to candidates for this section would include:
- As with the previous section, remember to put this into context – YOU are working for a company and you would like the family to purchase the items from YOU – avoid directing the family to another provider.
- Avoid copying and pasting copious amounts of detail here (focus on the necessary detail).
- Discuss the benefits and drawbacks of each option and make your recommendations.
- Include costings for each item
- Consider a network diagram / animated model
- Explain security issues and options for the family

CONNECTIVITY RECOMMENDATIONS

Most candidates compiled evidence that referred to theoretical understanding of the connectivity section of items within the specification. Candidates should concentrate on specific recommended solutions to complement the hardware and networking recommendations for the family. N.B. It is not necessary to repeat the recommendations for each member of the family should there be a household solution.

Overall recommendations to candidates for this section would include:
- As with the previous section, remember to put this into context – YOU are working for a company and you would like the family to purchase the items from YOU – avoid directing the family to another provider.
- Avoid theory bookwork here – make sure you concentrate on making specific recommendations for your solution
- Include wired and wireless options
- Discuss the benefits and drawbacks of each option and make your recommendations.
- Include costings for each item
- Consider a connection diagram / animated model

INTERNET RECOMMENDATIONS

Some candidates produced good evidence for this section and centre marks reflected this accurately.

N.B. It is not necessary to repeat the recommendations for each member of the family should there be a household solution.

Overall recommendations to candidates for this section would include:
- As with the previous section, remember to put this into context – YOU are working for a company and you would like the family to purchase the services from YOU – avoid directing the family to another provider.

- Avoid theory bookwork here – make sure you concentrate on making specific recommendations for your solution
- Include Internet, email and VoIP solutions where appropriate
- Discuss the benefits and drawbacks of each option and make your recommendations.
- Include costings for each option

CULTURE AND SOCIETY

Some candidates provided very lengthy evidence for this section giving almost too much detail about specific issues that could affect the family with the use of the recommended items. A summary of issues relevant to the members of the family would be more appropriate – each member of the family exist in different environments in their daily lives and the use of mobile phones and other devices could impact on their individual circumstances. It is not expected for example, that a lengthy description of the effects of radiation on the brain, would necessarily cover this section in isolation. A more appropriate view could include a discussion of relevant issues to the scenario such as: issues of using mobile phones when driving (further opportunities for future accessories sales?); use of mobile phones within school/college environments or trains and buses etc. The relevant issues considered should include all items of recommended hardware.

Overall recommendations to candidates for this section would include:
- Avoid theory bookwork here – make sure you concentrate on making specific recommendations for the appropriate use of your recommended options.
- Consider the benefits of adopting your proposals, and summarise the benefits to the family.

eQUOTE
Some candidates presented their recommendations to the family in what was seen as a very professional on-screen multimedia product. This contained all of the required information to the family and incorporated a variety of relevant multimedia features. This allowed access to the high marks in this section. A small number of candidates presented their on-screen information using very trivial formatting – this did affect the allocation of marks to the candidates.
Overall recommendations to candidates for this section would include:
- The eQuote should:
    - Be professionally formatted in the context of the scenario
    - Introduce you as the contact for the organisation
    - NOT include links to external websites – all links should be self-contained. Remember external web pages frequently change!
- Look at other published examples of multimedia publishing – some on-screen books are textual only, investigate other methods of utilising multimedia to effectively present information.
- You will gain credit for incorporating suitable multimedia components e.g. Images, Animations, Sounds, Videos, again remembering the need for it to be fit for purpose in a business context.
- Make the eQuote interesting and exciting for the recipient!

REVIEW

In general, centre assessment of candidate's work for this section was accurate. In order to access the higher marks, candidates should consider the following recommendations:

Overall recommendations to candidates for this section would include:

- Use subheadings…
  - State sources of information.
    - if web-based state URL and date information retrieved
  - Comment on your own performance
    - How did you feel you performed in completing this coursework?
    - What skills did you develop?
    - What difficulties did you encounter?
    - What would you do differently or improve next time?
  - Compare your eQuote to other methods of electronic communication of similar information
  - Make sure you spell-check and proofread your work.
  - Use appropriate technical terminology in your Review

AICT 5 eProject

Introduction

This series, one again, demonstrated a range of work from candidates and, whilst it was very encouraging to see the high quality of work produced by some candidates, there were a number of issues that emerged in this series which centres need to be aware of and are raised in this report. There were a full range of marks awarded across all grades and every centre had heeded the clear warnings in the specification about the requirement to use specialist project planning software. The majority of centres used Microsoft Project and centres that used this software generally used it effectively and candidates were able to demonstrate a high level of capability. Some centres used the free products available such as Gantt Project and Open Project and, whilst there appeared to be greater variation in its use, some candidates were able to score highly.

Outside Controlled Conditions

- The variation in the presentation of agenda and minutes was not an issue, but candidates and groups should be given guidance in the content of these important documents, particularly of minutes. At the very least, these should contain action points with named individuals to ensure that work in completed by the next meeting. In the best examples, minutes were professional, detailed and focussed. In the worst examples, they tended to be vague, non-specific and brief. Candidates should be encouraged strongly to write the minutes immediately after the meeting to ensure that they are an accurate record of what went on in the meeting. It appeared, in some instances, that the minutes were an after-thought and were simply a narrative of what went on in the meeting. In a small number of cases, there were more agendas than minutes.

- Whilst it is normal practice for different members of the group to have specific responsibilities, one of which may be the development of the prototype spreadsheet based on the requirements known to date, it is essential that all members of the group have some input into the development of the model. It was clear that, in some cases, an individual in a group took sole responsibility for the development on the prototypes which meant that the other members of the group struggled to implement the Revised Client Requirements in the controlled time as they appeared to have very little knowledge of the workings of the system. Consequently, candidates achieved very poor marks for the 'Project' section.

- There was some very good practice visible and it was clear that candidates who made full and effective use of the group work outside of the controlled conditions gave themselves every opportunity of achieving high marks in the 15 hour controlled task.

Problem Definition

- Candidates were, on the whole, able to produce a set of clear objectives based on the needs of Wired4Safety, as presented in the scenario, and based on any assumptions made by the candidates. To award marks in Mark Band 3, however, candidates must indicate how these will be measured. This is difficult in controlled conditions, but candidates would be expected to identify some success criteria for each objective which will be used to assess the success of the solution.

- Most candidates colour coded their Individual Problem Definition to show the changes between the work produced in the group work stage and the individual work produced inside the controlled conditions and this was most useful in the moderation process. 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 some cases, however, 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. In the best examples, candidates were able to break down the aims from the scenario and enhanced these considerably by widening the scope of the project based on their research into the problem area. Weaker candidates tended to just focus on the aims given in the scenario.

Project Organisation

- A variety of Project Planning software was used by centres. The most common program used was Microsoft Project, but a number of free software titles were used and these included Gantt Project and Open Project.

- There is a clear expectation that candidates make use of specialist project planning software for this unit and use this software to manage their time during 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, detailed plans were presented for the whole unit, including the group work period, but this resulted in the planning of the 15 hours being superficial and lacking the depth required for awarding marks in the top mark band.

- In the best examples of work, candidates were able to use project planning software effectively and were able to exploit the features of the software to both plan for the 15 hours of the controlled time and communicate their progress. For example, these candidates used features such as dependencies, resources and notes, amongst other things. Weaker candidates used the project planning software superficially.

- Candidates are expected to produce a number of versions of their plan and to communicate their progress throughout the 15 hours controlled time. In the best examples, candidates used the Notes feature of the software. Some candidates presented a project diary which was also useful. When showing the different version of the plan, candidates are expected to account for any changes. 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.

- In the best examples of work, candidates made use of contingency time in their initial plan and also set 'checkpoints' at regular intervals throughout the 15 hours. These checkpoints were used to assess their progress to ensure that they were on target for completion of the project.
- Candidates should be reminded that it is not necessary to produce pages and pages of screen dumps showing their use of the Project Management software as this wastes valuable time during the controlled conditions. Candidates should provide the actual files from the Project Management software so that they can be accessed by moderators. Similarly, the exporting of plans in PDF format (an option in Microsoft Project) should be discouraged as the actual files are preferred.

The Project

- The were a large number of candidates were able to implement the Revised Client Requirements and there were some outstanding solutions to the given scenario.

- Some candidates, however, appeared to struggle with the implementation of the Revised Client Requirements during the controlled time, meaning that their spreadsheet models had not really developed beyond that produced at the group work stage. From scrutiny of the minutes in such cases, it appears that a single member in the group took sole responsibility for the development of the prototypes during the group work stage and that there was not a shared understanding of how the prototype was developed by all members of the group. Whilst it is normal for tasks to be shared in the group work stage, it is essential that all members of the group are involved in the development of the prototypes so that they have the necessary expertise to develop the model in light of the Revised Client Requirements when working individually.

- In other cases, candidates implemented a fairly elementary solution to the Revised Client Requirements based around some basic changes to a single worksheet and did not integrate these new requirements into the whole system. In order to achieve high marks in this section, candidates are expected to modify the *whole* of the spreadsheet model in light of the new requirements.

Review

- A number of candidates did not devote sufficient time to this section of their work and did not recognise that this represented 20% of the total number of marks available for this unit. Based on this, candidates should spend approximately 3 hours on this review and should ensure that they cover all aspects detailed in the Specification.

- Some candidates produced very long reviews which were mainly based around comments on screen dumps, often at the expense of quality evaluation and review.

- Some candidates produced reviews which were superficial. In some cases, the review was more of a reflective 'diary' of what happened during the 15 hour controlled conditions. In these cases, candidates were penalised.

- In the best examples, candidates produced detailed, insightful and honest reviews at both the length and level of extended writing expected at A2.

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.

- A number of candidates chose not to use the given ePortfolio template and developed their own multimedia ePortfolios using buttons and graphics. Whilst laudable, candidates would be wise to recognise the small number of marks available for this and concentrate their efforts in the controlled time to other aspects of this Unit which attract more marks. Candidates can still be awarded 5 marks for using 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.

AICT 6 - eStudio

General Remarks

This is the second time this unit has been moderated. This was the most popular of the A2 project units and many very good eportfolios of work were seen. Centres had generally ensured that their candidates had access to a range of suitable software and the skills to produce effective graphic and multimedia products.

The unit requires candidates to produce both graphic and multimedia products and for this series was based on the 'Sell me a story' scenario.

Requirements Specification

Produce a requirements specification document to summarise:
• **the purpose of the campaign**
• **measurable success criteria related to the campaign objectives**

Produce a test plan to give details for testing the final products.

Most candidates produced an accurate summary describing the purpose of the campaign and were able to list a series of success criteria based on the given campaign objectives. Success criteria that were both realistic and measurable proved to be a difficulty and candidates were not penalised at moderation if this was not achieved.
The majority of candidates produced test plans that provided for objective testing, where this was possible e.g. length of video, navigation of website etc. and subjective testing of graphic outcomes, usually involving peer surveys. In several cases the results of the subjective tests would have benefited from the opinions of other groups less connected with the project.

Graphic Design

Produce a design log for the required graphic products to include stimulus material, initial ideas, illustration of their development and related design decisions.
Include details of elements and tools and techniques required for further development of the proposed designs.

Most candidates presented initial ideas and some illustration of their development. The recording of stimulus materials and the explanation of design decisions were areas of noted improvement, but there were examples where significant changes in the designs were illustrated without any accompanying explanation.

As in the previous series few candidates addressed the requirements to include details of elements and tools and techniques required for further development. The intention is for candidates to illustrate or describe ideas for additional elements, such as text, character features, backgrounds etc. and for them to demonstrate their knowledge of the available software by identifying the tools and techniques they intend to use in the development of their work.

Multimedia Design

Produce a design log for the required multimedia products to include stimulus material, initial ideas, illustration of their development and related design decisions. Include details of components and tools and techniques required for further development of the proposed designs.

Again most candidates presented initial ideas and some illustration of their development and recorded stimulus materials, but the explanation of design decisions remains an area for future improvement. The use of storyboards and timelines in the design of the stop frame and animation is another area for further development that should be to the benefit of the final outcomes, as is the early identification of the requirements for any accompanying sound track.

As for graphic design few candidates demonstrated their knowledge of the available software by identifying the tools and techniques they intended to use in the development of their work.

Graphic Products

Carry out prototyping and testing to develop the final graphic products. Prepare evidence of prototyping and testing for your design log.

Most candidates provided screen shots that confirmed the software used and some extensive records, comprising step-by-step screen shots of the production process were seen. The most successful candidates were more selective and presented screen shots to demonstrate significant developments and the use of software tools that they had found to be particularly effective.

Several candidates would have benefitted from obtaining useful feedback on their work at an interim stage.

Image of the new lead character for use on all campaign materials

Most candidates produced character design and image that was relevant to the campaign, although it was disappointing to see so many characters based on secondary sources taken directly from the Internet and presented with limited editing. .
The most successful candidates produced professional designs that were clearly related to the given audience.

Typical book sleeve for one of the books and a double page 'spread' from one of the books showing scenes from a typical adventure

The book graphics produced varied results. Many candidates took the opportunities provided to create a set of original designs with well-developed backgrounds and interesting story lines, although use of text as a graphic element was noted as a general area for improvement. Other candidates relied on backgrounds taken from secondary sources to produce a series of simple designs with inserted images that were not of an appropriate level.

Three items of merchandise to promote the new lead character

Some imaginative products were seen with the more successful candidates taking the opportunity to demonstrate their photo-editing skills by including well formatted images of their items in use. In other examples candidates presented very simple designs and demonstrated only limited software skills.

Paper-based net of the new lead character to cut out to create a three dimensional model

Few candidates rose to the challenge of producing a net that resembled their character designs, with many only applying images to very simple geometric shapes. The most successful products were based on more complex nets with designs applied to enhance the 3D model. Some appreciation of patterns/shapes being transformed by folding into the 3D character is required and should have been the subject of prototyping and testing.

Multimedia Products

Website of 3 pages to comprise:

Home page with the timeline animation

Parents' page with downloadable copies of the book sleeve and the double page 'spread'.

Children's zone with the stop frame animation

Most candidates produced a website of 3 pages that presented the required information. Several candidates included images of their graphic products on the web pages, usually to good effect and many effective animations were seen, sometimes as a splash screen, but more often as a banner to the pages. Only a small minority of candidates relied on the use of animated gifs downloaded from secondary sources.

The most successful candidates adapted their work to suit the specified audiences and produced web pages with well-designed navigational features, carefully chosen colour schemes, clear fonts, consistent layouts and demonstrated skill in the use of roll-overs, transitions etc.

Stop frame animation - screen-based advert with an original backdrop and sound track featuring the new lead character and friends

A wide range of approaches to the authoring of the stop frame advert were seen. The most successful examples involved well prepared image sequences to provide the stop frame motion combined with selected title slides and multi layer, synchronised sound tracks. Less successful stop frames included examples of work that omitted to address the advertising purpose and simply comprised stop frame images without context or sound.

Review

Produce a review document that evaluates and suggests improvements covering:
- **the final products**
- **the tools and techniques used • own performance**

As for other units the review was well done in cases where the evaluation of the final products included some consideration of end user feedback, leading to suggestions for further improvement. The reviews of the tools and techniques used ranged from simple descriptions of process to the consideration of the effectiveness of a range of software facilities as required for the higher marks.

When commenting on their own performance candidates need to identify changes of approach likely to lead to improvement of performance and / or outcomes. They should avoid comments about needing more time and avoid vague suggestions about their level of effort and organisation.

ePortfolio

Produce an eportfolio to provide a context and showcase for the campaign products.

Most candidates produced a functional eportfolio that provided access to the products and supporting evidence. In general the eportfolios provided limited context but were usually easy to navigate, although the index pages of some candidate had not been clearly named. The more successful candidates were able to design pages that showcased their achievements, highlighting their final products and often using elements taken from the products within their designs.

AICT 7 eConnect

This is the fourth time this examination has been offered and there were only a small number of candidates.

The AICT 7 paper is divided into two parts; Part A comprising a one hour examination paper primarily offered digitally and Part B (CD based), which provides a series of tasks to be carried out in a practical two hour examination.

The paper was provided in a digital format that required candidates to enter their responses into an on-screen examination.

Part A

General Remarks

Part A of the examination was completed on-line using the BTL secure web site. This did not cause any difficulties for centres.

Remarks for responses

This part of the examination is taken as an on-line examination but was also offered in paper form.

Q.1   Describe how each of the following concerns about installing a network could be addressed:

(a)   All staff will have access to the network and could possibly corrupt or destroy shared data.

(b)   All shared data could be lost if there was a disaster and the computer servers were damaged.

(c)   The business will incur costs administering and maintaining the network.

(d)   The network may crash, staff will not be able to work and no orders can be taken.

Parts (a) and (b) were answered well but candidates did address the concerns in part (c) and part (d).

Q.2   There are several different communication infrastructures used to connect Local Area Networks (LANs) and to connect Wide Area Networks (WANs).

(i)   Describe one communication infrastructure for connecting a WAN and justify why it is suitable.

(ii)   Describe two other communication infrastructures for connecting a LAN and in each case justify why each is suitable.

This question was generally well answered.

Q.3   Two possible network topologies that Vale Home and Garden could use are a star topology or a bus topology. Recommend, with reasons, which network topology they should use. Explain why they should not adopt the other named topology.

Candidates demonstrated a good understanding of this topic.

Q.4   The function of some common hardware devices is given below. Name each device.

(a)   Amplify signal to link two cable segments.
(b)   Allow communication wirelessly with the network.
(c)   Change the physical signals from different media.

Candidates were able to name the devices described.

Q.5   State the most suitable protocol for each of the following uses.

(a)   Copying a file from one location to another via the Internet.
(b)   Transferring multimedia web pages over the Internet.
(c)   Transferring emails between computer systems.

Again candidates were able to name the protocols.

Q.6   (a)   Describe two ways in which the new network could be used to improve internal communication.

(b)   Describe a possible problem with one of the methods chosen in Part (a).

There were many acceptable answers to this question and candidates gained at least half of the available marks.

Q.7   Explain why each workstation on a thin client network will be cheaper to purchase and have lower running costs compared to a standard workstation.

This topic has not been examined before and good answers were evident.

Q.8   Explain in detail how packet switching and circuit switching operate. Describe the contents of a typical packet and give advantages of packet switching compared with circuit switching.

Candidates must be reminded to read the question and provide all the information requested. To achieve high marks candidates must explain in detail and give advantages.

Part B – The Recommendation

General Remarks

Part B – The Recommendation of the examination was completed using network design software and print screen evidence in a word processed document. Candidates typed written responses to some tasks in the same document. This did not cause any difficulties for centres.

The scenario and tasks were of a similar type to previous papers.

Remarks for responses

Task 1

Centres should remind candidates that a 'scatter gun' approach of placing all hardware in all rooms will not gain marks as marks were deducted for inappropriately located hardware.

The location of each component is important. Thought should be given to where the servers and switches should be located.

All computers require a network interface card.

Task 2

Generally if Task 1 was well answered then marks were gained in this task. Also this task allowed candidates to justify the location of hardware that was not anticipated and gain marks.

Task 3

Most candidates were able to gain some of these marks. Candidates should be reminded that intranets and extranets are logical and not physical entities.

Task 4

Candidates should use the number of marks available for a task to determine how much detail to provide in their answers. This task was worth five marks.

Part B – The Implementation

General Remarks

Part B – The Implementation of the examination was completed using server simulation software and print screen evidence in a word processed document. Candidates typed written responses to some tasks in the same document. This did not cause any difficulties.

Candidates labelled their screen shots as instructed. However centres should encourage candidates not to severely crop their screen shots as evidence may be lost. Also there is no need to reduce the size of the screen shots to make many fit on one page. They are not printed, therefore no paper is saved and it is important that the examiner can read all the detail on the screen.

The examiner must have clear evidence be able to award marks.

Candidates will be expected to give reasons for adding users to groups and then add the users to the groups to satisfy the given objectives.

Candidates will be expected to justify the share permissions for folders and set the permissions such that the given objectives can be met.

Remarks for responses

Part B – The Recommendation

The server tasks were completed well.

Candidates were able to justify and give reasons for naming conventions as well as use them.

Candidates should refer to the given objectives to determine who should be in each group and what permissions each group should have.

Candidates should complete the table of the object names at the start and then refer to this document throughout the remaining tasks.

It could be argued that any name, if unique, is acceptable. Candidates must be instructed to use a naming convention. If they decide to use very short abbreviations as a convention, which may not be obvious to an examiner, they should be encouraged to justify and explain their chosen convention.

AICT8 – eLearn

General remarks

In most cases candidates had addressed the requirements of the specification and had coded eLearning systems. In some cases candidates had produced good quality solutions that were appropriate for audience and purpose.

Problem Definition

Most candidates had undertaken some analysis of current practices for the delivery of their learning content. Many candidates were able to use this research to form a problem definition that identified the broad aims and limitations for the proposed eLearning system. Some candidates were able to produce detailed problem definitions and to form clear and measureable criteria for the evaluation of the finished eLearning system.

Where candidates failed to carry out sufficient investigations they struggled to create a sufficiently detailed problem definition. These candidates had difficulty in setting measurable success criteria.

Design an eLearning package

Most candidates were able to produce basic designs for an eLearning system. Many candidates produced designs that were sufficiently detailed to allow the system to be implemented. Some candidates produced comprehensive designs for eLearning systems that were clearly suitable for the intended audience and purpose.

It is important that all candidates consider both the data to be handled and the processes required to produce the eLearning package. These processes should be included in the Design section of the work.

It also important that all design work is carried out before the system is created. Candidates should not be given credit for retrospective design work.

Some candidates had given a great deal of thought to the nature of their eLearning systems and the needs of the learners and had created engaging and interesting interfaces and scoring systems.

Create an eLearning package

A wide range of eLearning systems were seen. Most candidates were able to produce systems that were functional and many produced systems that included a range of well thought out features.

Candidates should ensure that they concentrate on producing an interesting product rather than demonstrating the use of complex code whilst losing sight of the requirements for the system.

Tutorial

The production of the tutorials provides the candidate with an opportunity to showcase their work. Some excellent examples were seen. However candidates should ensure they make the most of the on-screen environment to demonstrate the use of their systems. Candidates should ensure that the two tutorials are each well directed at their intended audiences.

Test an eLearning package

Some good test plans were seen during the moderation process. Many candidates were able to design effective test data to test both the functionality and logic of their implemented systems.

Candidates should be aware of the importance of the commentary they provide to accompany the testing outcomes. In many cases screen prints of outcomes were seen but the work lacked the discussion required to access the higher marks for this section.

Review

Many candidates provided reviews that comprised narrative rather than evaluative content. Centres should ensure that candidates are aware of the requirements of the specification for the review for this unit. In many cases candidates failed to cover all five of the areas contained in section 8.8 but simply provided a description of their work.

ePortfolio

Almost all candidates provided ePortfolios that allowed access to their work. Some of the best work was seen when candidates had themed their ePortfolios to reflect the context of their eLearning packages.

Candidates should test their ePortfolios to ensure that all links will be functional when the work is removed from the network.

AICT9 - eTransact

General remarks

In most cases candidates had successfully addressed the requirements of the specification and had created ecommerce websites that allowed the end user to view and purchase goods. In some cases candidates had presented work of an extremely high standard and are to be congratulated on their outcomes.

Design an eTransact system

Many candidates presented clear designs for the layout of a website intended to present product information, promote user confidence and enable transactions to take place. Some designs included all information required to create the website including clear structure diagrams, proposals for navigation, user interaction and graphic content.

Most candidates had given some consideration to the structures required for efficient storage of all information required to carry out efficient transaction. Some candidates had designed data entry facilities and validation routines.

A minority of candidates appeared to have created retrospective 'designs' for their implementations. Retrospective work should not be given credit and it is essential that candidates create up front designs for their systems.

Create an eTransact system

Most candidates created basic functional websites that comprised a series of web pages designed to present products. Some of these basic websites enabled transactions to take place. Some candidates created fully functional, easy to navigate websites comprising a series of well-structured web pages that enable efficient transactions.

Many candidates produced structures that stored data and their systems generated some automated output. More able candidates created efficient data structures that stored all information required to carry out a transaction and provide the consumer with the details expected from a commercial system.

Test an eTransact system

Many candidates appeared to have created prototyped systems and had taken on board feedback to allow them to improve their websites. Most candidates had created test plans that would allow them to test their systems. Some candidates had created comprehensive test plans that would allow them to test all areas of their system. The results were often presented with appropriate commentaries.

Provide customer advice

Most candidates had carried out some research into distance selling regulations and the terms and conditions documented on a range of commercial websites. The results of the candidates' research were presented in a variety of ways and some candidates would have benefited from using a more professional approach to the presentation of this information.

Review

Many candidates' reviews tended to contain a narrative account of work carried out rather than an evaluation of their finished systems. Candidates would benefit from ensuring that their reviews covered the areas contained in 9.8 of the specification.

ePortfolio
The majority of candidates presented their finished systems and supporting evidence in an ePortfolio. Most of these ePortfolios allowed access to all of the candidate's work. In some cases candidates would have benefited from testing their links to ensure that they worked when removed from the school/college network.