GCE EXAMINERS' REPORTS

ICT
AS/Advanced

SUMMER 2011

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.

IT

General Certificate of Education 2011

Advanced Subsidiary/Advanced

Unit Statistics

The following statistics include all candidates entered for the unit, whether or not they *cashed in* for an award. The attention of centres is drawn to the fact that the statistics listed should be viewed strictly within the context of this unit and that differences will undoubtedly occur between one year and the next and also between subjects in the same year.

ADVANCED SUBSIDIARY / ADVANCED								
				Grade Boundary				
Unit	Entry	Max Mark	Mean Mark	A	B	C	D	E
IT1	**6599**	**80**	**35.9**	**58**	**52**	**46**	**40**	**34**
IT2	**7118**	**80**	**61.8**	**73**	**65**	**57**	**49**	**42**
IT3	**2755**	**90**	**41.0**	**67**	**59**	**51**	**43**	**36**
IT4	**3662**	**100**	**78.6**	**86**	**76**	**66**	**56**	**46**

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

Chief Examiner and Principal Moderator: **Noreen Kay**
Principal Examiner: **Dai Rudge**

IT1
General Comments

Candidates write well but some do not read the introduction carefully enough and give contexts from previous years. A lot fewer candidates lost marks by not labelling their spreadsheets/ or not using the numbering to refer to them. Some candidates also need to be reminded that they have to show the formulas in the printouts not just refer to them.

Comments on Individual Questions

Q.1 (a) Generally well answered although it is disappointing to see candidates who think that biometrics are for monitoring patients in life support systems or do not use appropriate terminology – eye scanning. Candidates had to mention the device/ method and give a realistic use to gain the first mark. Some candidates surprisingly could not give a use. Candidates lost marks by giving security as an use and a benefit.

(b) Probably the best answered part of Q1 although some candidates used brand names for their device or failed to give a use. Weaker candidates tended to be too vague with their benefit.

(c) Too many candidates write generally about WIMPs and desktops rather than give an actual use.

Q.2 (a) Most candidates were able to explain what is meant by accurate but some tried to give features of good information.

(b) Weaker candidates appeared to be confused by the difference between validity and accuracy but had great difficulty in explaining the difference and/or coming up with an example which showed the difference.

(c) This question was answered better than in previous years but candidates lost marks by failing to give suitable examples.

Q.3 Most candidates scored well here and give two electronic methods. Some candidates still think that by watching general television programmes they will gain a lot of specific knowledge.

Q.4 A lot of candidates did not understand the difference between distance learning and CAL and consequently either wrote their answers the wrong way round or duplicated them.

Q.5 (a) A number of candidates do not seem to understand that mailmerging is an automatic process where the computer puts information from a database into a document. Most candidates were able to give a specific use.

(b) Too few candidates are able to describe what a template is in a word processing context. Some redeemed themselves by being able to give realistic use.

(c) Too many candidates discussed using macros in other software, especially spreadsheets. This is surprising as they should have used them in their coursework.

Q.6   It was disappointing to see so many candidates unable to define an expert system. It was also worrying to see candidates writing about intensive care monitoring systems because that is all they knew about health. Most centres had though prepared candidates with appropriate knowledge of advantages and disadvantages of expert systems.

Q.7   Weaker candidates found this question hard as they wanted to talk about general advantages of IT rather than concentrating on processing. They then tend to write about issues such as it made bad handwriting easier to understand or the use of spellcheckers.

Q.8   (a)   Most candidates picked up some marks here but too many were not able to write enough to gain more than half marks or repeated themselves. Most candidates wrote about gaming and gained some marks but there are so many other home entertainment systems that could have been mentioned and were frequently ignored. They could have written about MP3 players, digital photography, social networking, mobile phones, betting, dating, online shopping, surround sound systems but chose to write about watching ordinary televisions not the latest developments.

       (b)   A surprising number of candidates could not give sensible disadvantages. A number of candidates though did write very well here.

Q.9   Candidates dropped marks in the definition by not covering all 3 parts. It was disappointing to see candidates discussing other applications rather than financial forecasting.

Q.10   (a)   Most candidates could say what their functions were doing but fewer could go on and say why.

       (b)   Most candidates could state a method they had used but weaker candidates lost marks by not saying on which field it was working. Further marks were also lost by giving the same advantage for both functions.

       (c)   Only the better candidates correctly named the validation technique they used or gave enough detail to gain the second description mark. Candidates also lost marks by putting validation on spinners etc.

       (d)   Most candidates could state what their macro was for but fewer could give a good reason for why they used it. Similarly with their second function. Sorts need a before and after.

IT2
General Comments
The standard of coursework and evidence continues to improve. Cropping of evidence is less of a problem than in previous years. Many Centres now seem to be aware of the requirements as regard to evidence and many make very helpful and supportive comments explaining why they awarded advanced marks. However where moderators disagree with the Centre it is in generally the same areas as last year.
See comments below for detailed guidance.

Comments on Individual Sections

Analysis
Background. Again this was well done.
Identification of 3 documents.
This has improved with candidates only being required to state the type and purpose of the three different types of documents. Candidates should be encouraged to find three different type of document not 3 flyers for example.

Ethos or house style.
Candidates still tend to be descriptive rather than analytical. They *describe* colour schemes, fonts etc without analysing or explaining how this contributes to the 'ethos' and house style e.g." it has a blue background with comic sans font". We need to know why it has a blue background; what does it portray? ; why comic sans font? It also must be realistic. Some candidates put in explanations of ethos /or house style which has absolutely no link with the documents they are analysing. Some candidates still copy and paste mission statements from the organisations website. This should be awarded no marks as they are not analysing their documents.

Analysis of an organisation's documents.
This has improved but is still the most troublesome section. Teachers who cannot attend INSET are advised to study the teacher guidance and exemplar material.

Detailed analysis of two paper based DTP documents
It is **not** acceptable to use a website in the analysis of two DTP (paper) documents. We are looking for the purpose, **data** and audience of both documents.
1 mark is for identifying the **data** on **both** paper documents
1 mark is for *identifying* at least 4 tools and techniques on either one document or between both documents.
NB.
- the latter does **not** including fonts and fonts styles
- does **not** including clipart/logos unless some photo editing feature is identified.
- all 3 of bold, centre and underline must be identified as 1 feature only.

A screenshot or the actual document must be included and candidates have to annotate/circle/arrow on the screenshot or actual document at least 4 different features across the two documents. The moderator cannot support marks for features which cannot be seen. A separate list or paragraph saying the documents have these features is not acceptable.
Centres were often incorrectly giving this mark when only 2 features were identified or where the same feature was identified twice. Most documents had features which could have been identified but were ignored.

Automated documents
This improved and many candidates actually included already automated document.
The purpose, data and audience of an actual document **or a process which could be automated** must be described in detail. When describing an actual or potential automated document candidates failed to describe or suggest in detail **suitable merged fields** but some Centres gave full marks.

Webpage or presentation
Candidates improved in detailed descriptions of the purpose, data and audience of an actual website or presentation or potential website or presentation.

When analysing an existing or potential web page candidates were required to identify/annotate/circle/arrow at least 4 different techniques which were used. Some candidates identified DTP features instead of multimedia features. If there was no website or presentation and candidates chose to identify potential ones then they must describe in detail multimedia features which could potentially be used to get the second mark.

Vague statements such as could include hyperlinks, sound and a video should not be credited. What would the hyperlinks do in detail? What would the video be about and what is its purpose etc.

Many did not identify or four describe four different multimedia features but some Centre's still gave full marks.

It is possible to have a mixture of the two approaches. If a website is basic and a candidate can only identify two multimedia features they could suggest how it could be improved by giving two extra concrete suggestions for other multimedia features that could be used.

Task 1:   Desktop publishing

Again centres are again to be congratulated on encouraging pupils to give clear evidence enabling moderators to support most centres marking in this section.

Many candidates still confused image or ethos or house style with the target audience or gave a general description.

In order to gain the mark candidates needed to identify the philosophy, vision or persona being reflected by the document **or explain or** justify why they used a particular icon or colour scheme.

Candidates must printout the final document. **Only features which appear on the final printed leaflet will be given credit.** Some candidates clearly show the construction of the header and footer or watermark but this does not appear on the final printed document and should not be credited.

The final leaflet must be printed out and included in the coursework.

<u>Detailed design of the document</u>
This was very much improved. It is still worth noting for those centres that cannot attend INSET;

- 1 mark was awarded for an outline layout with inherent page orientation and identifying which frames were text and which were for pictures.
- 1 mark was awarded for **details** of the **'data'** *both* text and graphics
- 1 mark was awarded for details of fonts and font sizes to be used
- 1 mark was awarded for details of at least **<u>8 special features</u>** used such as tables, bullet points, tab settings, line spacing paragraph styles etc

Moderators wish to thank those centres who encouraged their candidates to use highlighter pens to make the features stand out.

<u>Use of basic features</u>
<u>This was well presented</u>

The only extra evidence required in the evidence of basic features is screenshots of the origin of two different sources of graphics.

It was very useful if candidates annotated their final document to show where they used the features, by using arrows, as this did help the moderator to detect them more quickly.

Headers and footers. Both needed to be present. Some candidates gave only a header or a footer and hence were not awarded the mark. Sometimes the footer was lost in the body of the text if margin sizes were not suitable or it was obscured by a large border and candidates could not be awarded any marks.

NB It is also important to note that if they put in automatic pagination they were awarded a mark in the advanced section so something else was needed here. Also there was often evidence of headers and footers being used in the final document sometimes they only appeared on one page or there was evidence of construction but they did not appear on the final document.

<u>Use of Advanced features</u>
It would be helpful if centres would indicate on the IT2 marksheet which advanced features were used.

Here supporting evidence is absolutely essential for the features used.

<u>The features must appear on the final document not just in construction evidence.</u>

Again the most popular techniques attempted by candidates included layering, watermarks, page or frame borders, line spacing and customised tables.

Many candidates could have improved their reports by providing clear before and after screenshots for;

- different paragraph formats,
- own tab settings,
- own indents

Superscripts and subscripts both needed to be used and it is essential that screenshot before and after evidence is given or candidates will not be awarded the mark. Many candidates did not realise they had to include both subscript and superscript for the mark. Centres should discourage candidates from inappropriate or nonsense use of superscript and subscript just to cover the marking criteria as they will not be credited with a mark.
Customised tables A few candidates are shading in tables or borders and are still claiming it as customised tables

Task 2: Automated document

Again it is worth noting that any mistake in the database or the letter will be penalised. Candidates should be encouraged to spellcheck their final document, proof read it and in particular check for capital letter mistakes and basic grammar mistakes. Candidates should also check that the content of the letter matches the stated purpose. Many of the mistakes this year were similar to last year.

Candidates should ensure they have the contact details and the date on the letter.
The comments from last year are applicable to this year.

Design of document
This was generally well done but candidates must remember to plan their **three** macros on their design and identify the **mailmerged fields.**

A few candidates **did not** achieve the 'data' mark because they just wrote 'body of letter and did not describe the content of the letter.

Use of Basic Features
This was generally well done but Centres did award marks when there was a clear spelling or capital letter mistake or inconsistencies in the use of capital letters in titles. Candidates should also check for capital letter mistakes in the data from the database.

Use of Advanced features

- Again this was well done but some candidates need to think about the 'professionalism' of their macros. Silly nonsense macros e.g. put in 8 enters; macros which already exist on the toolbar e.g. print macros and save macros; and copy and paste macros should not be credited. Please note that unless the macro code is included, no marks should be awarded for macros.

- Saving as a template is still poorly evidence. Some candidates continue to crop the evidence especially saving their mailmerge template as a template document (not letter headed notepaper or a blank page). The display the dialogue box on top of the mailmerged letter so the moderator cannot see it is the mailmerged template. Candidates should show the mailmerged fields in the background and the saving as a template dialogue box in the foreground.

- Candidates should be encouraged to put in one final screenshot of the mailmerged template with the fields clearly visible and the macro buttons on the toolbar for that template.

Task 3: Presentation

The evidence for this was generally very good.
The main problem areas was detailed design of data and features such as hyperlinks, hotspots, bookmarks, animations, transitions, background template, sound, video and animations.

<u>Background style</u>

Very well done

<u>Animations and transitions or rollover buttons on web pages.</u>

Again usually very well done.

Candidates doing web pages used scrolling banners etc for animations.

For transitions they used rollover buttons or some edited the html coding to change the colour sequence from one page to another.

AS suggested last year another alternative for transitions could be image effects (e.g. thumbnails as illustrated by YouTube or Flickr and CS4 has a new feature called Web Photo Album or an add-on called Lightbox which can emulate what you see on major websites). Evidence must be clearly provided. **It must be made clear** if the technique is used as transitions and not repeated for animations.

<u>Use of Sound</u>

Again many candidates did attempt to capture sound and many provided good evidence. Some candidates only showed two 'loads' e.g. load onto disc from hard disc and load into presentation

<u>Use of original video.</u>

The level of detail in storyboards was much improved but some did not put details of timings and effects used on their storyboard.

Many candidates must produce their own original individual video and applied effects but some gave very reduced sized or cropped screenshots so it was difficult to see the evidence. Candidates should be encouraged to annotate their evidence.

<u>Use of original animation</u>

This was generally well done but a complex animation is not 3 frames/clones where an object moves a very small distance in a straight line. Three frames were given as a guide to **3 different events.**

Evaluation
Again this section was a clear differentiator with a wide variety in the standards of candidates' quality and quantity of answers. Most centres again were more demanding, expecting more detailed and critical analysis before awarding the marks. However some centres still clearly do not understand the depth required and are giving full marks for shallow summaries of what the candidates did.

Compression and storage techniques
This was very much improved. Candidates are expected to discuss in detail the relative merits of at least 3 different compression techniques they have used. They should identify and relate it to their files used and justify their choice.
Some Most candidates did discuss 3 different techniques but did not identify their files nor did they consider alternatives and justify their choice.
A few centres still incorrectly awarded marks for;

- Zipped files: a description of how they zipped their files will not gain candidates marks.
- Reducing text field length in the database is not compression it is saving memory.

IT3

Comments on Individual Questions

Q.1   The question was reasonably answered by most candidates but the weaker candidates dropped marks by not being accurate enough with the factors and mixing them up.

Q.2   Most candidates gained at least 2 on this question but some then either tended to repeat themselves or were too general, i.e. *include pictures* rather than implying that the pictures matched the words being read.

Q.3   Weaker candidates tended to confuse themselves by discussing *peer to peer* and *client server* rather than ring versus star. They also needed to make six distinct points. Candidates also lost marks by discussing a server rather than a central server/hub.

Q.4   A number of candidates seemed unsure of what *remote management* involved and talked about general management rather than managing stations.

Q.5   This was better answered than in previous years.

Q.6   A number of candidates lost marks by not making their factors clear and then giving extensions for the same factor. Two different distinct extensions did gain two marks if it was clear that they were from different factors.

Q.7   A significant number of candidates seem confused between distributed computing and distributed databases.

Q.8   The confusion carried on here but luckily they could gain some marks because some of the advantages/ disadvantages overlap. Better candidates scored well.

Q.9   Most candidates gained some marks here but did score well by not being precise enough with their terminology or tried to answer January's question about Boolean searches.

Q.10   Reasonably well answered with most candidates gaining around half marks. Weaker candidates did not write about four different requirements and would benefit from studying previous mark schemes.

Q.11   A number of candidates couldn't give three distinct changes but could discuss some of the worries.

Q.12   Those that did badly in Q11 could only make general points here. There were some perceptive responses from the better candidates.

Q.13   This was much better answered than in previous years, with more now seeming to realise what a risk analysis is.

Q.14   Again quite well answered by most candidates. Weaker candidates were again too general in their discussion of the two methods.

Q.15   A question that discriminated, only the better candidates knew the correct terminology and could match them up with the appropriate methods.

Q.16 It was pleasing to see how many candidates seem to understand the factors that lead to an effective MIS. Weaker candidates got confused by the factors and mixed and matched wrongly.

Q.17 It was disappointing to see the number of candidates who could not explain accurately enough what primary and foreign keys are and to seem to be confused by what they do.

Q.18 Very well answered on the whole. Some candidates tried to invent strange tables or added complications in such a basic task. It is though, probably time to move on from this style of question as most of the simplistic scenarios have by now been covered.

Q.19 Only the better candidates could score more than 1 on this question.

Q.20 Most candidates seem to now understand the concept of a data warehouse and more candidates could give one advantage as compared to previous exams.

Q.21 Again better answered than previously, with most being able to explain what is meant by data mining and getting part way through an example.

Q.22 This question tended to discriminate quite well. Weaker candidates tended to write about crimes such as fraud and paedophiles or just duplicated themselves. The better candidates showed some good analytical skills and made a number of thoughtful points.

IT4
General Comments

There were many good examples of projects with again some exceptional examples going far and beyond the requirements of A2. It is encouraging to recognise that most Centres clearly understand the requirements of the specification and have heeded the advice given at INSET and in past moderators reports. Most Centres have very much improved the presentation of the evidence required to enable moderators to support marks.

Comments on Individual Sections

Analysis and user requirements
Centres are beginning to be more demanding in the level of detail required for full marks at A2. Some of the problems we saw last year were less evident but some centres still award high marks for a retrospective list of what the candidate did or a brief very outline of what the system is required to do.
Note hardware must be a complete list including backup devices, monitors printers etc. or candidates should not be awarded the mark. User interface requirements was improved this year with many candidates covering areas such as forms dialogue/ menu driven systems; house style for forms and reports; health and safety issues such as eye strain or colour blindness.

Design
Design of queries
The biggest problem this year was centres not sticking to the specification and again a cluster effect seems to be evident.
NB   Candidates are required to design, implement, test and document;

- 2 x queries which use a single table and which **both have criteria and a realistic reason**
  NOT to do a sort

- 1 query which uses linked tables and which **has criteria and a realistic reason**

- 1 query which uses linked tables and which has **NO** criteria **and a realistic reason**
  (The most common use of this could be to select only certain fields for a report or another common use is to sort data and the third most common use is to produce a calculation).

- 1 query which uses a **parameter search and a realistic reason**. *(This could be on a single or linked tables depending upon the reason).*

- 1 action query (append/ delete/ update) **and a realistic reason**.

Although reasons have improved in some centres they are still descriptions of what the query does.

Centres should note;

- Reasons for queries could be strengthened and could include fieldnames and operators and criteria where required.
- Where candidates do a similar topic e.g. hotels, candidates should be encouraged to design different queries.

Design of validation
This was much improved but some centres still need to note;

- Two different types of validation techniques are required not two range checks
- **Drop down list and input mask wizards provided by Access are not acceptable** as suitable validation techniques for A2. Candidates should not be discouraged from using such techniques but they cannot be awarded marks in the validation section. Candidates could use range checks, OR, date validation or **original** input masks.
- Validation using input mask wizards should **not** be awarded any marks in **design implementation or testing.**
- If a candidate does 2 range checks the second range check should **not** be awarded any marks in **design implementation or testing.**

Design of reports
Again improved but centres should note;

- Candidates should design and implement **original** headers and footers
- **Calculation in the report should be different to that in the query or form**. Many candidates use the same formulas and this should be discouraged.
- =Date() is not acceptable as a calculation in a report.
- =Now() is not a formula and is not acceptable as a calculation in a form.
- Candidates should not have implemented solutions as their design

Design of automated routines
Centres should note;

- Timers / =Now() etc / =Date() by themselves are not regarded as sufficiently complex to count as and automated routine.
- Candidates should not have implemented solutions as their design

Implementation

Most candidates gave good evidence of implementation.
Centres should note;

- Candidates should be encouraged to screen shot or print out their tables of test data to prove their queries worked. I have seen a few pieces of work where there was only traceable evidence of 1 record.
- Reports must have original headers and footers.
- Suitable test data should be used to show sorted and grouped data on the final report not just construction evidence. Therefore this should be evident in the data in final report not just in construction. Reports with only one record cannot show sorted and grouping worked.
- Calculated fields in the report should total up data from more than one record.
- Candidates should create their own macros not use the wizards on buttons in forms.
- Splash screens and security VB could be more clearly separated out as two different routines.
- The new version of Access caused some centres problems in not allowing them VB code. JCQ guidelines say they should use the design of an original macro tool not wizards to create the outline of the code then editing the code with their own original code. Most centres did this but some just added another macro without any original editing.

Testing

Most candidates had good and detailed test plans.
Centres should note;

- There were still some candidates giving no evidence of the dialogue box and hence the search criteria in testing the parameter query.
- Calculation in query or form should be tested. This means the result of the calculation should be in the test plan before running the test (dry running). Some candidates showed very good screenshots of testing the calculation on the on screen calculator and then comparing the result with that in the form.
- Candidates should test password routines with valid usernames and passwords and also invalid usernames and passwords

User documentation

Centres should note:

- In user documentation candidates should show before and after in the add a record; edit a record and delete a record section. It is not enough to say click a button when describing how to add, edit, delete data and run different queries. Candidates should not it is not how to construct a query so there should be no evidence of queries in design view. In 'User documentation' we want to see evidence of how each of the different types of queries is executed.
- Disaster recovery needs recovery instructions not just backup. Disaster recover should be extended to a detailed description on how the database can be recovered and reinstalled not just backup.

Evaluation

Centres are demanding an evaluation reflecting A2 standard. The candidates are responding by being more critical and analytical. However it still tends to be an area where some centres are slightly over generous.

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