

GCSE

Edexcel GCSE

ICT (1185/3185)

This Examiners' Report relates to Mark Scheme

Publication code: UG 018057

Summer 2006

Examiner's Report

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Summer 2006

Publications Code UG 018057

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1185/3185 2F Principal Examiners' Report

Report Section B

QB2b

Many candidates produced partial descriptions of the steps needed to create a graph, however few achieved sufficient detail to gain full marks, few included the selection of cells, or the need to add titles for the graph or axis. Often candidates identified the need to select the graph icon, but failed to gain any more marks by merely saying 'follow the graph wizard'.

A disappointing number of candidates quoted word processors or DTP packages as suitable programs for this process.

Many candidates either misunderstood, or did not read the question, answering it as a mathematical exercise by describing a bar graph without reference to use of a computer. Some even drew a bar graph from the information.

QB3aii

A large number of candidates correctly identified back and posture problems and the problems associated with eye strain. However, many did not give enough thought to the remedies for the problem. Stress on comfort as a remedy for back pain led to loss of marks in many cases.

The extension of 'eye strain' most commonly seen was the necessity for frequent breaks, although some candidates recommended rather short periods of work and rather long breaks. Anti-glare screens were recommended in quite a large number of answers, but only a few referred to the need to avoid sunlight reflection and a smaller number still referred to focusing on distant objects.

Weaker candidates failed to understand the question and spoke about safety problems, eg tripping over cables, electrical faults etc. Some poorer candidates also included RSI in their answer showing that they had not read the question properly.

QB3b

This question was attempted well by the majority of candidates. The most frequently given response was to remember the password, but many also appreciated the need to keep the password secret, not to choose anything obvious and to change regularly. The need not to let anyone observe entering of the password was also a popular response.

Unfortunately, a large number of candidates advocated writing it down. A significant number of candidates did not gain the full 4 marks for this reason.

Few candidates advocated mixing of letters or mixing upper and lower case.

QB4b

This question was poorly answered. Some candidates did not appear to know what a template was. Many candidates had used a template but had no idea why so were unable to explain how it had helped.

A few candidates referred to its use for setting up the layout, but few were able to expand beyond that. The most common error seen was to describe and define the term rather than say how it can be used.

Only a minority referred to consistency and image and there was little expansion which made any sense. Some candidates gave responses such as saves time, but failed to explain how.

Report Section C

QC1a

The majority of candidates were able to name appropriate input and output devices, however few were able to identify 'program'. Few were able to name a backing store device, the most common error being to name the media e.g. floppy disc.

QC1b

A very small minority of candidates was able to identify two features of RAM and many struggled to find one feature. This was a significant contrast to the Higher paper. A large number were able to give Read Only Memory but few were able to describe non-volatile.

QC1c

This question was not particularly well answered. Many referred to simplicity of use but 'quicker' and 'easier' were frequent responses.

A significant number said it was easier to enter data which was not acceptable. Very few referred to the price being displayed automatically.

QC2a

The vast majority of candidates were able to gain 2 or more marks. Poorer candidates lost marks by assuming that every database storing personal details should include gender and date of birth / age.

QC2b

This question was generally well answered. A very large percentage of candidates identified at least one method.

The use of passwords was the most common security method identified, although many candidates wasted a mark by giving passwords twice, i.e. a password for the machine and a password for the database.

Giving backups as a security method without making it clear that the backup should be stored away from the main computer also lost many candidates a mark.

QC2c

Many candidates correctly identified the possibility of hackers getting their information. However marks were often lost by simply saying that data might be seen by somebody else without making it clear that this might happen illegally.

Junk mail was also a frequent response, although many gave burglary as one of the risks. Few candidates gave identity fraud.

QC2d

Candidates struggled to gain marks on this question. Several candidates failed to read the question and listed three Acts which apply to ICT.

Many gave repetitive answers which related to not passing on information.

QC3a

Fewer than half of the candidates were able to identify any resources and only a very small number gained both marks.

QC3b

Nearly all candidates were able to express that Chirpy Toys would have a wider customer base, but few were able to gain further marks.

Few understood that fewer shops would require fewer staff and hence save money.

Some responses gave the impression that candidates had not read and understood the question and consequently reported on benefits to customers as opposed to Chirpy Toys.

Some candidates assumed that more on-line customers would lead to more shops being opened.

QC3c

The majority of candidates failed to gain any marks. Many answers related to any method of remote ordering, eg goods taking time to be delivered, the unknown quality of goods and the difficulty of returning goods, etc.

QC3d

Many candidates were able to gain one mark by concentrating on browsing and buying from the comfort of their own home; saving money because of no travel costs.

As usual there are many candidates giving general answers such as quicker and easier, which gain no marks.

QC3e

Where candidates read and understood the question they gained good marks, clearly identifying search facilities, back and forward buttons and home buttons.

However, many gave features of good design in terms of good graphics/text etc and subsequently gained no marks.

QC4a

Fewer than half were able to correctly identify LAN.

QC4b

Over half of the candidates were able to identify at least one advantage, however very few gave three. The most frequently identified were sharing peripherals and data and the ability to use any machine on the network. However there was obvious confusion about shared software.

Many lost marks by concentrating on shared Internet connection, showing clearly that they had not read the question.

QC4c

This was well answered, with a significant number of candidates gaining full marks.

QC4d

A very poorly answered question with the majority of candidates failing to gain any marks. Candidates often failed to read the question and gave disadvantages.

Many identified stand alone computers being cheaper, but did not explain this and therefore failed to secure the mark. Quicker access to the Internet was frequently given.

QC5a

Both parts were very poorly answered which would indicate that many have not encountered the term 'applications package'.

QC5bi

Well answered by the vast majority of candidates. Marks were often lost however by vague answers such as 'colour', where 'change font colour' would have gained the mark. Many candidates mentioned changing font size, despite the detail given in the question.

QC5bii

Very few were able to identify a grammar checker.

QC5biii

In general, a poorly answered question. Candidates often said that the spell checker may not pick up all words, but failed to expand to get the marks. The candidates who did well usually gave examples to explain their answers e.g. synonyms - there & their.

QC5c

Almost half were able to correctly identify CAD and a significant number were able to give an appropriate use.

1185/3185 2H Principal Examiners' Report

Report Section B

QB1a

The question was generally answered well, with the majority of candidates gaining over half marks. Most candidates clearly described the procedure for creating a bar chart.

However marks were lost where candidates failed to clearly identify precisely the cells required, instead giving statements such as 'highlight Column F' or 'highlight the data'. Given that this is a higher level paper a surprising number gave answers which referred to fields.

Many candidates had clearly used software that did not allow highlighting of non-adjacent columns and descriptions included copying and pasting to a new location and then highlighting the now adjacent cells.

QB1b

There were some good responses with candidates correctly using the terms, typical, extreme and invalid data and also giving correct values.

However a significant number of candidates did not answer the question but instead described, often in great detail, how to apply validation rules to spreadsheet cells in order to generate an error message. Other incorrect answers included formulae to calculate Opening Stock and conditional formatting.

QB2

Health issues seemed to have been well taught and candidates were able to give very good solutions to problems. The vast majority were able to gain 2 or more marks.

Incorrect answers were often descriptions of general safety issues in the workplace eg, wearing hard hats and software safety precautions. Many spoke of "comfortable" chairs and chairs giving "back support", rather than ergonomically designed or adjustable seating. Regular breaks proved a popular solution to everything.

QB3a

Generally there were better responses than in previous years, fewer candidates giving answers implying 'shortened eg, M for male'.

There were many answers indicating that candidates realised the data was discrete and that the options were limited, but missed marks by not mentioning the key fact of two.

QB3bi

The majority of candidates were able to identify the error and give the correction. However some candidates merely repeated the error that was given in the question.

QB3bii

Generally well answered, with many candidates scoring marks by mentioning verification and giving an example, such as proof-reading or double entry. It is however obvious that many candidates still confuse validation and verification.

The word "check" was used often without the qualification required to get the proof-reading or "by another person" mark.

QB3c

Many candidates failed to identify the need for precision in wording queries and gave vague responses like 'search for females in year 9' or '9-F', whilst others failed to specify the field name.

Those who gained marks were usually able to identify the 'Gender = f' criteria, but the wild card or range search for the correct Tutor Group was only managed by the better candidates. The most common incorrect response was to have Tutor Group = 9. Many failed to identify the need for 'AND' operator.

QB4

This question was not well answered. Candidates were primarily concerned with the pre-set templates on Microsoft Publisher and clearly had not been taught about setting up templates, despite this being one of the extension tasks in word processing coursework.

Many did not appreciate the value of actually creating a template for this particular task. The assumption was that they would simply choose a standard template from the DTP package.

Those who did describe the advantages of using a template described a ready-made layout that would ensure consistency, but rarely thought of one that had already been created by Mrs Moore, with standard centre data already in it, and special pages for items such as match results. The better candidates related the template to the centre's newsletter in this way, and explained how this would help inexperienced users.

QB5a

Most candidates had some logical idea of how the flowchart should work. However quite a few either did not put in arrows, or required the user to re-input only passwords.

Only a small proportion included a counter and the way to incorporate a counter to control a loop was known by only a few. Other candidates either had three successive inputs and tests or simply posed the question "three attempts?".

Very few completed the chart with an appropriate message, the majority simply stated "account locked" as an action.

QB5b

Candidates generally did well in this question and they showed a good understanding of viruses and the need for anti-virus software, although some candidates thought viruses were put onto the system by hackers.

Many candidates addressed their answers to keeping candidates out of trouble rather than the security of the system and developed the concepts of unsuitable sites and inappropriate e-mails.

A large number of candidates showed that they were aware of the terminology, but not its correct meaning eg they used word "firewall" for everything, including preventing candidates access to unpleasant sites and eliminating viruses. "Encryption" and "Spyware" were other misunderstood terms.

Report Section C

QC1a

There were some very good answers to the question and candidates who recognised that the postcode could be used to illustrate their answers scored well.

A large number gained a mark for recognizing that the input mask restricted data entry, although some candidates lost marks for suggesting 6 fixed characters.

A frequent incorrect answer related to input masks being a kind of security feature. A number of candidates also thought that the post code could be used to validate the address.

QC1bi

This question was generally well answered, with the majority of candidates gaining 2 or 3 marks.

Passwords was definitely the most common security method quoted although many candidates wasted a mark by giving passwords twice, ie, a password for the machine and a password for the database.

Giving backups as a security method without making it clear that the backup should be stored away from the main computer also lost many candidates a mark.

Encoding was often quoted erroneously instead of encryption.

QC1bii

The vast majority of candidates were able to gain at least one mark, with many gaining both.

Marks were generally lost by simply saying that data might be seen by somebody else without making it clear that this might happen illegally.

QC1biii

There were very many good responses to this question, with candidates showing a very good knowledge of the Data Protection Act.

However a very common incorrect answer was to say that the data can't be passed to anyone else.

QC1ci

A large proportion of candidates recognized that an 'IF' statement was required and went on to gain an extra mark for correctly giving the formula for calculating 10%. The weakness in answers was in matching the inequality to the outcomes.

QC1cii

Many candidates failed to gain a mark with this formula, often losing the mark by using normal mathematical symbols, rather than the spreadsheet symbols eg * for multiplication. Others used the wrong cell references.

QC1di

A large number of candidates made no attempt to answer this question, which is surprising in that Macros feature strongly in extension tasks for coursework.

Candidates often lost marks by giving responses which explained the purpose of a macro and frequently used the example in the question as a guide with responses such as 'helping to link 2 documents together'.

QC1dii

Given responses to the first part of the question it was unsurprising that the majority gained no marks here. Those who did understand macros usually gained a mark for identifying a button or icon on the toolbar, fewer identified the combination of keys.

QC2a

This was well attempted by a large proportion of candidates with many gaining all 3 marks.

A large number of candidates identified the 2 marks for correctly giving search engines and entering 'Chirpy Toys' but failed to go the further step of saying that the customer would have to make use in some of the results by clicking on one, or at least thinking about the results.

A pleasing aspect was also how few gave trade names, other than as an example of a search engine.

QC2b

Considering that candidates make significant use of the Internet, the responses to this question were disappointing.

General statements on the wider customer base provided the majority of successful responses.

Many candidates had difficulty differentiating between advantages to the company and advantages to the customer.

Very few seemed to appreciate the reduction in staff costs because of on-line ordering, or the fact that there was little need for premises. Very few mentioned the benefits of customers entering their own data.

QC2c

One mark was gained by a large number of candidates usually for 'not leaving home', or generally saying too busy, disabled, old and children.

The responses such as researching the company, comparing goods from a variety of firms and discount for ordering on line were rarely used.

QC2d

A large proportion of candidates were able to gain at least 1 mark on this question, with the most common correct answers relating to card details being intercepted and bogus web sites.

Many lost marks by giving issues which would relate to all remote shopping eg, not being able to try on clothing.

A significant number of candidates misread the question and gave advantages rather than disadvantages.

QC3ai & QC3aii

The majority of candidates gained 1 mark in both parts of the question indicating that ROM and RAM are being well taught at this level. Many gained 2 in (i).

Candidates lost marks in (ii) by giving other features of ROM and not explaining non-volatile.

QC3bi, QC3bii & QC3biii

These three parts were generally answered quite poorly indicating that candidates had little real understanding of what goes on inside the CPU.

For the ALU part candidates frequently used the words "arithmetic" and/or "logic" in their answers thus losing a mark; similarly the word "immediate" was frequently used in the answer for IAS. This, along with the use of "controls everything" or similar for the control unit showed that candidates were largely guessing wildly and just using the words given in the question.

The poorest section was the IAS, the majority of candidates demonstrating very little knowledge.

Many candidates confused the control unit with the operating system or the control panel.

Very few candidates understood the concept of the control unit decoding instructions and sending signals to other components.

QC4a

Candidates were generally able to gain marks for identifying the fact that there are fewer security issues and less chance of viruses.

However, marks were often lost for responses such as "if one crashes, the others remain working", rather than explaining the concept of server failure.

Candidates mentioned cheaper, but rarely expanded this to discuss why, such as cable costs, server costs. Most candidates missed the obvious response of "Easy to set up."

Very few candidates mentioned that there was no need for a network manager.

QC4b

This was generally well answered with most aware of the benefits of a network although many candidates talked about Internet access.

The majority were able to identify the sharing of data and peripherals.

However, very few candidates recognised that it was easier to install or update software, preferring the simplistic response that "you only require one copy of the software".

There were very few responses that mentioned the central backup of data.

QC4c

There were many marks available to candidates for this question and those that were the most successful generally adopted a methodical approach to their responses. However very few candidates were able to achieve more than half marks.

Given that the majority of centres operate a network system few candidates were able to identify the major components such as server, cables, work stations and network interface cards.

Many candidates gave responses which concentrated on Internet access, confusing LAN and WAN.

Candidates often misinterpreted the question and gave detailed descriptions of network topologies.

Marks were lost where candidates failed to use the correct terminology - wires instead of cables, computers instead of workstations or terminals.

There were some very detailed descriptions of basic hardware components of a standard computer system - keyboard, mouse, monitor etc. All of which gained no marks.

1185/3185 Principal Moderator's Report

General Comments

More schools this year seemed to be aware of the marking criteria and therefore the standard of work submitted by candidates was of a higher standard than previous years. This did however widen the gap between centres who actively encouraged their pupils to produce focused projects and those centres that gave minimal guidance to candidates.

Centres and candidates that had used the following sub-headings usually produced work that matched the marking criteria and therefore scored well.

For candidates to score high marks, all sections of the project report should clearly explain how the data will be manipulated to solve the problem. It is useful to give the candidate the following sub headings or writing frame.

Identify

- Introduction
- The problem
- Real user
- Alternative solution 1
- Alternative solution 2
- Why is ICT a sensible way of solving this problem.
- Quantative Objectives

Analyse

- Hardware
- Software
- Input
- Processing
- Output
- Backup
- Security

Design

- Initial Designs
- User Comments
- Final Designs
- Test Plan
- Subtasks

Implementation

- Evidence of Error Correction
- Evidence of Testing.
- Evidence of the Problem Solutions

Evaluation

- Evaluation of Objectives
- Users comments
- Further improvements

Projects were on the whole still far too large, with candidates including far too much hardcopy of their solution. While there were fewer candidates that included user guides which are not required, there were still many candidates including multiple screen shoots of their method of solution.

Internal Standardisation

It was occasionally apparent that internal standardisation had not taken place, despite having a signed OPTEMS declaration to the contrary. This makes it very difficult to moderate and some work had to be returned to centres to be remarked.

Annotation

Despite my comment in last year's report very few centres gave reasons for marking a project as an extended piece of work. This is the most useful piece of annotation a teacher can add to the project and can be added to the CCMS1. Teachers who use the marking grid available on the Edexcel web site need to add none or very little extra annotation apart from the extended marking features.

Administration

Some centres made it very difficult for moderators by:

- Failing to send the correct sample of work
 - Highest and lowest marked candidates work is required
 - If any of the asterisked candidates have been withdrawn they should be replaced by another candidate of a similar standard.
- Not filling OPTEMS correctly
 - Marks not written on OPTEMS
 - Marks on OPTEMS were not the same as candidates work
 - Teacher had failed to sign OPTEMS
- Not completing CCCS1 correctly
 - No indication of whether the marking was standard or extended

Moderators reported that there was an increase in the use of plastic wallets this year. Please do not use plastic wallets; a treasury tag should be used to secure materials sent for moderation.

Standard and Extended

This is still causing some centres problems and centres are reminded that the evidence for extended work should not just appear in the Implementation section but also in the Analyse and Design sections. A significant number of centres had extended marks reduced to standard due to the lack of extended evidence.

Teachers should be able to tell whether a project is an extended project by checking if the evidence for extended tasks exists in the design section. Only extended elements that exist in the design can be given credit in the implementation section.

Evidence

It was apparent this year that candidates had attempted complex solutions to problems, but failed to include the evidence necessary for top marks to be awarded. Some candidates only included extended evidence and failed to show evidence of the problems solution. This will reduce the marks that can be awarded in the implementation section. Centres should give candidates clear guidance in what to include or not include in the project report.

Identify

- Introduction
- The problem
- Real user
- Alternative solution 1
- Alternative solution 2
- Why is ICT a sensible way of solving this problem
- Quantative Objectives

Most candidates are stating problems and identifying a 'real user'.

Consideration of possible alternative solutions was often varied with the better candidate often comparing an ICT solution to a manual one. To gain top marks the candidate has to justify the use of an ICT solution to the problem.

More candidates expressed the user's requirements (quantitative objects) clearly, but too many candidates are still giving general statements such as: "The user will need to be able to search the database", when an objective such as "The user will need to produce a printed list of everybody who has not paid their bill" gives the candidate an objective that can be used in all the other sections of the solution.

Although the specification only suggests three objectives, this should be looked at as a minimum and the more a candidate can suggest at this stage the easier it is to use them as a check list for analyse and design.

Analysis

- Hardware
- Software
- Input
- Processing
- Output
- Backup
- Security

General

Weaker candidates often made generalised statements that lacked detail. Candidates tackling extended projects need to include evidence of the extended features in the analysis. Most of the evidence will be in the Input, Process and Output sections.

Hardware

This was better this year with candidates concentrating on the hardware that is important to the solution of the problem.

Software

Only the software that relates solely to the candidate's solution is required and the choice should be justified by referring back to the original problem in the identify section.

Input

To score high marks candidates need to include examples of actual data stating how it will be collected and input into the system. The table below is one of the best ways to achieve this.

Data	Type	Collection	Input	Validation
Cost of product	Currency	Supplier catalogue	Keyboard	Not negative

Processing

Candidates find this section very difficult, with most of them producing a written report on how they are going to create the solution. This lacks any of the detail required to gain high marks. To improve on this these candidates should take each of the Quantative Objectives and explain how they are going to achieve them.

EG Quantative Object - Produce a weekly profit total.
Process - Subtract weekly expenditure from weekly income.

Output

This section is still very poor with little or no detail included. This should include alternatives and a justification of the chosen method. For some problem types eg DTP, WP and Multi Media this section is very important with lots of justified details required.

Backup

This should relate to the solutions backup and not the candidate's work. It is therefore recommended that candidates treat this as instructions to their users. It should include "real" file size, frequency and the medium to be used.

Security

Not all problem solutions need security. Some candidates had elaborate security when the solution required easy access by the general public.

Design

Designs should be regarded as working documents; crossings out and changes are acceptable as long as they remain readable. For designs to be awarded top marks they should show evidence of progression. This can be done by:

- Producing an initial design and then a second more detailed version.
- Adding detail to the initial design in a different colour.
- Photocopying the initial design and adding detail to it.

Far too many centres are still marking implementation as design. Once a candidate uses the target software the design process has finished and implementation has started.

When candidates are manipulating images, the original image should be printed out with notes on how the image is going to be changed. These changes need to be executed in a graphics package to be awarded extended marks.

Candidates would benefit from checking their designs against their objectives, ensuring they have included the objectives that will earn them extended marks. Only the extended tasks that are designed can be awarded marks in the extended range.

Testing

Most candidates produced test plans with general testing. To gain the higher marks candidates should produce test plans which include actual data that will test that the solution works. The test plan is best presented as a table similar to the one below:

Test No	Reason	Data	Expected Result
1 (SS)	To test Profit formulae	(Income) =£500 (Expenditure)= £300	Profit = £200
2 (DTP)	Each page should have company logo	Check each page	Logo on each page
3 (DB)	Search for non payments	See test data in table and payment = 0	3 records: Smith, Gall & Bone

When it is not possible to print out the results of a test, a column can be added for the teacher to sign.

Test No	Reason	Data	Expected Result	Teachers Initials
4(mm)	Sound plays for 5 seconds when slide is loaded	William Tell Overture	Hear William Tell Overture for 5 seconds when slide loads	
5(mm)	Animation on slide 6	The red cars.....	This text flies in from the left on a mouse click	

Implementation

Centres are reminded that if no real design exists the maximum a candidate can score for implementation is 2.

The evidence should be in the form of annotated hardcopy.

This should consist of three sections:

- Evidence of error correction.
 - 3 or 4 annotated printouts showing the work at different stages of the implementation.
- Evidence of the implementation of the test plan.
 - Maximum of one annotated printout per test, in practice several tests can often be shown on one printout.
- Evidence of the problems solution.
 - These need to include any evidence that has not already been printed out.
 - If the test plan covers the solution then for a standard project no further printouts may be necessary.
 - For extended work printouts/screen shots may be necessary to show evidence of extended work.

The inclusion of formal testing linked to the test plan needs to be present for a candidate to score more than half marks on this section.

Candidates need to make sure that they have hardcopy evidence of extended tasks. These may require:

- formulae printouts,
- screen shot of queries in design view,
- screen shot of how the validation is setup,
- screen shot showing columns with text flow.

Candidates need to show that the problem has been solved and not just a series of printouts showing the method of solution.

Evaluation

- Evaluation of Objectives
- Users comments
- Further improvements

The evaluation should be based on the solution of the original problem and not the candidate's use of the software.

Most candidates attempted to evaluate their original objectives, but often failed to include formal users' comments in the form of a letter or the results of a questionnaire.

The evaluation should be concluded by the candidate commenting on the users' comments and suggesting further improvements to the solution.

Spreadsheet Solutions

Identify

Quantative objects were less of a problem, but candidates would still benefit by using simple objectives, with at least one objective per formulae used, for example:

Susan needs to calculate a total for income each week.

Susan needs to calculate a total for expenditure each week.

Susan needs to calculate the profit each week.

Susan needs to have the monthly figure for profit.

Susan would like to be able to have a graph of income, expenditure and profit for a four week period.

Analyse

Candidates should be encouraged to use actual data in this section.

Input could be in the form of a table with a list of the data required, with columns for method of collection, method of input and any validation required.

In the processing section candidates need to discuss the formulas required in general terms eg Profit = income - expenditure.

The output section should focus around the user interface, use of colour, menus, buttons and input boxes and the type of graphs.

Design

Initial designs will not have any detail regarding formulas, but should give the user an idea of what the finished solution would look like. Then once the user comments have been recorded the candidate will add the detail regarding formulas, look up tables etc. It may be useful to give the candidates a blank spreadsheet printout with the grid on. Candidates need to make sure they have designed the elements which will lead to extended marks being awarded.

A full test plan needs to include the data values of the test data and would test:

- Every objective.
- Every formula (replicated formulas only need to be tested once).
- Any other elements that have been created.
- Validation needs to be tested with two values - one valid data item and one invalid data item.
- If buttons are used for navigation the candidate only needs to test **ONE** button.
- Features used for extended work.

Implementation

There is no requirement for the candidate to show the moderator how they have created the solution, but for a spreadsheet a formulae printout should always be included. The only exception to this is for extended solutions. Eg validation and lookup tables may need extra screen shots/print outs.

Evaluation

The candidate should start by evaluating the original objectives, a simple yes or no with a page reference to the evidence is enough.

Following this, any changes made during implementation to the original design or any problems encountered because there were not the facilities required are not relevant, eg the school network going down.

Database Solutions

Identify

The lack of quantitative objects often got pupils off to a poor start. Simple objectives such as the ones below will help candidates produce a more detailed solution.

Fred needs to produce a list of cars sold that week.

Fred needs to be able to search the database by price.

Free needs to be able to search the database by manufacturer.

Free needs to be able to search the database by engine size.

Fred needs to print out a list of cars in price order each week for his advert in the local paper.

Analyse

Candidates should be encouraged to use actual data in this section.

Input could be in the form of a table with a list of the data required, with columns for method of collection, method of input and any validation required.

The objectives can then be used to explain the process and output that needs to happen in the analyse section.

In the processing section they can describe the queries and reports required and for the output discuss the printed reports and the forms required, plus the user interface.

Design

The initial designs should concentrate on look and feel and therefore will be based on the screen forms and printed output. The user comments can be written on the back of the designs.

The designs will then have more detail added to them such as colour, font types/sizes, plus the designs of any data structures, relationships and simple/complex searches or any other features of the software used. This will lead to extended marking.

Several candidates just created the relationship but did nothing with it, this does not gain extended marks.

A full test plan needs to include the data values of the test data and would test:

- Every objective.
- Creation, deletion and amending records.
- Any other searches/sorts which have been created.
- Validation needs to be tested with two values - One valid data item and one invalid data item.
- If buttons used for navigation the candidate only needs to test **ONE** button.
- Features used for extended work.

Implementation

There is no requirement for the candidate to show the moderator how they have created the solution, but candidates do have to show the implementation of extended tasks. This can be done by a few screen shots - a walk through of the creation process is not required.

Evaluation

The candidate should start by evaluating the original objectives; a simple yes or no with a page reference to the evidence is enough.

Following this, any changes made during implementation to the original design or any problems encountered because there were not the facilities required are not relevant, eg the school network going down.

DTP Solutions

Identify

The problems were often too superficial to gain high marks. Good candidates will produce a reusable solution such as a template which can be used by the user themselves.

A candidate needs a problem that will give them a chance to demonstrate different DTP skills and realise that "real" DTP problem are not normally a one off solution, eg Magazines are produced every month, but very few candidates try to design a template for repeated use. A magazine where candidates need to create 3 different sorts of page gives them more scope.

- A front cover would allow them to display graphic and layout skills.
- A double page spread would allow text manipulation.
- A games page/readers' survey would allow different layout and text skills.

Most Sunday supplements have examples of these every week.

Quantative objects appear to be a problem for this type of project with candidates falling into the trap of it looking good. This is subjective.

Simply objectives such as the ones below will help candidates produce a more detailed solution.

The editor requires a front page with a full colour picture in the background.

The editor requires the middle pages to have an article of 1000 words laid out in columns.

The editor wants all the headings to be in the same style and size of font apart from the magazine name on the cover.

The editor needs page numbers at the top of each page aligned alternatively left and right.

The editor requires a front page with a full colour picture in the background.

Analyse

The candidate will probably need to discuss the extra equipment they may need such as scanners, digital camera and printers.

If the candidate is producing a reusable solution the data may be unimportant. Eg If the opening article will always be 500 words then the content of the article does not matter and the candidate could use any 500 word article cut and pasted from elsewhere.

The divisions between the input, process and output sections can get blurred. The input section should concentrate on where the individual data items will come from in terms of the problem. The vast majority of candidates state that the data will be downloaded from the internet, when in terms of the problem they would collect it from the editor, photographer or journalist etc. They can then discuss the format the work will be in and what they will need to do with it to get it into the DTP package.

If candidates are using a graphics package to manipulate the artwork then they need to discuss what they need to do in the process section. Different file formats and their use can also be discussed and the order they are going to do the work in.

1. Create template
2. Prepare graphics
3. Insert graphics
4. Insert text

The output section should be discussing paper size, layout and printing.

Candidates often gave their own backup solution here and rarely considered the user. The size of the file was often overlooked, lots of candidates assumed it would fit on a floppy disc when the file would be too large.

Design

The initial design should be a simple blocked design so the user has some idea about the layout. Most candidates then added details regarding the fonts for the final design which was not enough detail for a final design. The individual blocks need detail regarding size, number of words, and the location of the data file. Image manipulation may need the original graphic with annotation to the changes that are required.

If the solution requires an image to be manipulated the original should be printed out with notes on how it is to be changed. The changes should be made in a different software package to the original problem to gain extended marks. Simple manipulation such as resizing and cropping are not extended tasks.

A full test plan would test every objective, plus any features which had been added during the design.

Implementation

Three or four annotated printouts showing the solution at different stages plus the final solution and the evidence of testing is all that is required. If the candidate has manipulated images for extended marks, then before (design section) and after pictures are required as evidence.

It may be necessary for the teacher to annotate the candidate's work where it is difficult to produce hardcopy evidence of extended features.

Evaluation

The candidate should start by evaluating the original objectives; a simple yes or no with a page reference to the evidence is enough.

Following this, any changes made during implementation to the original design or any problems encountered because there were not the facilities required are not relevant, eg the school network going down.

When the users are a group of people a questionnaire is a good method of getting user feedback. However the results of the questionnaire should be analysed by the candidate and presented as a report. A single copy of the questionnaire should be included with the report.

Multimedia Solutions (See notes for DTP)

Candidates often solved very superficial problems. Candidates who attempted a more demanding problem such as a kiosk type solution usually scored very well. This allowed them the opportunity to include a menu system, sound, graphics and video.

Teachers need to certify that features which can not be printed have been used. One of the simplest ways to achieve this is to add an extra column onto the text plan for the teacher to initial.

Test No	Reason	Data	Expected Result	Teachers Initials
1	Sound plays for 5 seconds when slide is loaded	William Tell Overture	Hear William Tell Overture	
2	Animation on slide 6	The red cars.....	This text will fly in from the left	

Web Page Solutions (See notes for DTP/Multimedia)

A web site should not be a one off, but will need updating by the user once it has been created. Far too many candidates were just making web pages by cutting and pasting from other sites and were not really solving a problem.

Web pages are very difficult to do justice to in hardcopy and teachers should bear this in mind when setting this type of problem. Evidence for extended tasks must be clearly shown. For example it is possible to show animated graphics by printing out the individual sequence which makes up the finished graphic. Hyperlinks are not extended tasks when used in web pages.

Word Processing Solutions (See notes for DTP/Multimedia)

Centres should be very careful if submitting Word Processing and DTP solutions; they should concentrate on different skills. Several centres produced an advert via DTP and a flyer and Letter headed paper via Word Processing. These are not significantly different skills and may lead to the lowest solution being marked as zero.

It is recommended that centres do not submit work from both of these software types, but if they do then the Word Processing problem should be based on a mail merge.

Grade Boundaries - June 2006

Information and Communication Technology (Full Course) Syllabus 1185

Overall Grades

The figures given below are the minimum subject marks required for each overall grade in the summer 2006 examination.

(Foundation Tier)

C	D	E	F	G
51	42	33	24	15

(Higher Tier)

A*	A	B	C	D	E
73	63	54	44	35	30

GCSE Information and Communication Technology (Short Course) 3185

Overall Grades

The figures given below are the minimum subject marks required for each overall grade in the summer 2006 examination.

(Foundation Tier)

C	D	E	F	G
48	40	32	24	16

(Higher Tier)

A*	A	B	C	D	E
75	65	55	45	34	28

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