# Examiners' Report Summer 2009

**GCSE**

# GCSE ICT (1185/3185)

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## 1185/3185 2F – Section B

**Q1(c)**
A surprisingly large number of candidates incorrectly answered this simple question. The most common incorrect answer was D6-C6, many other answers involved incorrect syntax, typically the use of SUM with one or both brackets missing. SUM = C6 – D6 was another frequently offered response.

**Q1(d)(i)**
The majority of candidates gave correct responses. As in (c), syntax errors and the incorrect use of SUM dominated incorrect responses. Some candidates gave written descriptions of how the percentage could be calculated, but no formula.

**Q1(e)**
Most candidates clearly knew how to create a bar chart using a spreadsheet package but lost marks simply through lack of detail.

Marks were lost on a general reference to highlighting whole columns or referring to only one of the relevant columns in detail. On many good answers, this was the only mark missing.

Weaker candidates made references to all sorts of applications – word processor, database, desktop publisher.  Very weak candidates described drawing the graph by hand.

It was pleasing to see a large number of candidates giving more structured answers than in previous years as this did lead to higher scoring answers. Candidates should also be encouraged to use the indicated number of marks available (i.e. 6) as a guide to how much detail to give in their responses.

**QWC**
There was an even split of candidates gaining / not gaining the mark for technical terms and, as to be expected, the full range of marks for use of English.

**Q2(c)(ii)**
Many were able to identify proper nouns such as street name / town, a smaller number referred to mixed letters and numbers such as post code. However a significant number of candidates lost marks by using examples of proper nouns in both parts of their answer.

Many candidates made good attempts at describing homophones and a small number described spelling differences between UK and USA.

A large number of candidates lost marks by giving grammar and punctuation errors.

**Q2(c)(iv)**
Many candidates gave proof reading or re-checking the work.

## Q3(b)
Very few candidates missed out this question and a large proportion gained all 3 marks. Weaker candidates described the meaning of the terms rather than a specific reason for their use or gave very vague answers.

## Q3(d)
The responses to this question and Q2(c)(iv) seems to indicate that candidates have a better understanding of validation and verification than in previous years.

Many were able to correctly identify length check and type check; however, incorrect terms such as text check or number check were frequently given.

## Q4(a)
Questions on use of networks are still being answered quite poorly on the whole with few candidates having a real understanding of why they are used. Many candidates misinterpreted this as a question about wireless networks so answers about the degrading of the signal over distance were common.

Many candidates were able to gain 1 or 2 marks, although weaker candidates often made no attempt at all or gave the faster/ easier / better type responses.

Sharing peripherals, sharing data and using any workstation were the most common correct responses.

## Q4(b)
This part of the question proved to be more difficult than (a). Some of the marks were lost to unqualified responses such as 'can be slower' or 'more expensive', whilst others said that any single machine failing in a network would cause all the others to fail, with only the occasional candidate correctly saying that the server would have this effect.

# 1185/2F – Section C

### Q1(b)
A surprising number of candidates made no attempt at this question. Of those that made an attempt, many did not appreciate that the first image in the grid was actually larger than the original image, thereby losing the first mark by writing 'nothing' or 'cut and paste'. The marks for rotate and crop were commonly correct responses although other responses included 'flip' and 'cut'.

### Q1(c)(i)
Many candidates were able to score 1 mark for 'moving pictures' but few got both marks. Very few made reference to the use in presentation software. Weaker ones lost the mark(s) by just referring to 'cartoons' and 'looks real but isn't'. Others gave sound as an example.

### Q1(d)
Candidates generally understood this question well and many scored 2 marks. Weaker candidates gave mouse methods (given in the question) or relevant types of method but with insufficient detail, e.g. keyboard keys in general.

### Q1(e)
Generally well done, with projector and white board being identified by many. Some candidates lost marks for just giving 'board' and many others for incorrect hardware such as mouse and keyboard. TVs and monitors were also frequently stated.

### Q2(d)
As in previous years most candidates were able to score well on this question, this may reflect the fact that this is something which is not just a theoretical topic. Unfortunately there are a large number of candidates who think that writing a password down is a good idea.

### Q3(a)(i)
Many candidates lost marks through not correctly comparing on-line ordering with mail order specifically, thereby losing marks for responses such as 'not needing to leave home' without the rider 'to post the order'. Candidates must be encouraged to read questions carefully, including all of the information given in the rubric.

Surprisingly few gained the mark for being able to order 24/7 and many responses were too vague and open to interpretation.

### Q3(a)(ii)
As in (i) not reading the question lead to lost marks and few gained high marks. The most common correct answers related to a wider customer base but once more vague answers were common.

### Q3(b)
Generally well answered with fraud and hacking being commonly correct answers.

## Q3(c)
Most candidates identified using Google, which on its own would not have been worthy of a mark, however the majority gained the mark by backing this up by mentioning search engine.

Candidates must be aware that marks will only be awarded for using generic names for software and not trade names.

Many candidates went on to achieve a mark for entering search criteria but very few gained the mark for selecting the site from the list generated.

## QWC
Again there was a fairly even split for identifying technical terms and the full range for use of English.

## Q3(d)
Many candidates repeated what was in the question, giving answers relating to data being up to date and accurate. Overall responses indicated that candidates had a limited understanding and knowledge of the DPA.

Some candidates did recognise that personal data could not be sent outside the EU and has to be kept secure. A small number referred to keeping the data for only as long as necessary and that it should not be excessive.

Again, there were many vague answers which could not be credited and a small number confused the question and gave answers relating to copyright.

## Q3(e)
This was not answered as well as similar questions in recent years. Many candidates again failed to read the question and gave answers relating to taking regular breaks, particularly in relation to eye strain. Popular correct responses for eye strain included, suitable lighting, adjusting the brightness and screen filters.

For back strain many said get up and walk around. Some described that it can be bad for the back to sit all day. The most popular correct answer was adjustable chairs and backrests although many said use a comfy or padded chair.

## Q4(a)
Most candidates made an attempt to answer, with only a few blank responses and many scored 1 or 2 marks. Many candidates identified that it was more accurate and a few gained a mark for 24/7, but beyond those responses their understanding of this issue seemed quite limited and marks were rarely awarded for any of the other mark points.

Weaker candidates often described what a monitoring / control system does. Some responses included reference to dangers to humans, having clearly learned a 'standard' answer for the use of such systems.

## Q4(b)(ii)
Responses indicated a limited understanding of sensors. Very few identified a sensor as an input device. Of those who identified the idea of being able to detect many went on to lose the mark by using 'detect changes', marks were gained for identifying physical quantities. Weaker candidates frequently repeated the question.

Q5(a)

This question was not well answered by all but a very small minority of candidates.

The most popular correct responses were interviews, questionnaires and survey.

Many candidates gave very vague references to asking questions which could not be credited.

A large proportion thought that the 'try it herself' approach was appropriate whilst many others cited the various stages of the systems life cycle.

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# 1185/3185 2H – Section B

## Q1(a)
The majority of the responses were correct. However, in some instances, candidates used either values or incorrect cell references to write the formula which was not acceptable. In addition, there were some responses using arithmetical signs which again are not acceptable in a spreadsheet.

## Q1(b)
The level of the knowledge about handling a spreadsheet was below that expected by candidates at this level. Whilst most were able to identify that the answer should be an "IF" statement, few were able to go on and gain the other marks.

## Q1(c)
Generally well done; most responses demonstrated an understanding of the processes involved in creating a bar chart. Marks were often lost for not specifying the correct cells to be highlighted when creating the chart, but mentioned only columns B and D or something similar. However, all those that did identify cell references did so correctly.

QWC – The majority of candidates used two technical terms and many gained 2 marks for the correct use of English.

## Q2(a)(ii)
There was a very mixed response to this question. Those with knowledge of CAD software were often able to achieve full marks most frequently identifying 3D, viewing from different angles / rotation, easy to edit and accuracy. A small number mentioned templates / components library and a link with CAM.

Unfortunately a significant number spoke about DTP rather than CAD, or gave general software answers.

## Q2(b)
On the whole this question was poorly answered. Many candidates gave general answers such as printers and monitors; however the most disappointing aspect of a higher level paper was the number who could not distinguish between hardware and software.

## Q3(a)(i)
Many candidates were able to gain a mark for identifying that data is checked to ensure it is acceptable / reasonable etc. Few were able to identifying that it was a check done by the computer or 'on data entry'. There were also a large number who referred to checking to ensure that data is correct.

The usual confusion between validation and verification was evident, as were named validation checks (length, range) and suggestions for test data.

Q3(a)(ii)
There were many good responses, and where candidates were able to correctly name the checks they generally gave very clear descriptions. However few were able to correctly identify three checks. A large number referred to check digits, number checks and presence checks and verification / validation responses were very common. Candidates often failed to gain marks by not relating examples to the Ref. No. column.

Q3(b)
There were very few clear-cut answers to this question. Many responses scored two marks, one for 'query' plus one for 'Last Purchase Date', but few managed to give the correct search criteria.

As with earlier questions it was disappointing to see a lack of knowledge about a fundamental use of software from a large number of candidates. Many gave responses that involved manually entering details or copying and pasting into Word.

Q4
Candidates generally demonstrated a good level of knowledge and understanding in both parts of this question and many gained maximum marks.

(a) Candidates were often able to identify three advantages, although 'sharing software' was often given and some candidates described a LAN rather than identifying advantages.

(b) Candidates frequently gained marks for 'expensive to install', 'increased cabling' and 'viruses spreading quickly'. However marks were frequently lost for giving 'security' without any mention of the increased need for it.

Q5
Many candidates were able to achieve high marks on this question, indicating familiarity with the topic. Where marks were lost it was frequently for descriptions of website design features such as colour schemes and formatting, rather than navigation.

'Links' and macros were often given as responses as were references to a home page without mention of site map.

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## 1185/2H – Section C

**Q1(a)(i)**
Many candidates lost marks through not correctly comparing on-line ordering with mail order specifically, thereby losing marks for responses such as 'not needing to leave home' without the rider 'to post the order' and many candidates referred to the benefits of not having to visit shops.

Candidates must be encouraged to read questions carefully, including all of the information given in the rubric.

Only a small number gained the mark for being able to order 24/7 and many responses were very vague and open to interpretation. A surprising number at this level lost marks for confusing the benefits to customers and the company.

**Q1(a)(ii)**
The candidates' knowledge and understanding of the benefits to the company was generally low. Again many gave very vague answers and others lost marks for answers relating to shops.

Those who did gain marks generally referred to fewer errors, less staff and orders not getting lost in the post. Very few were able to identify improved cash flow.

**Q1(b)**
Many candidates demonstrated a good level of knowledge, particularly about hackers and methods of prevention. Other responses often dealt with concerns about products and delivery rather than online payment and demonstrated a good understanding of the DPA which unfortunately earned no marks.

Unfortunately many candidates were unable to match the concerns to the correct action and there was very little reference to spyware.

**Q1(c)**
Many candidates scored well on this question. Most candidates identified using Google, which on its own would not have been worthy of a mark, however the majority gained the mark by backing this up by mentioning search engine.

Candidates must be aware that marks will only be awarded for using generic names for software and not trade names.

Many candidates went on to achieve a mark for entering search criteria but few gained the mark for selecting the site from the list generated.

**QWC**
The majority managed to gain the mark for identifying technical terms and they generally gained both marks for the use of English.

## Q1(d)
As at Foundation level, many candidates repeated what was in the question, giving answers relating to data being up-to-date and accurate. However overall responses indicated that candidates had a reasonable understanding and knowledge of the DPA.

Many candidates recognised that personal data could not be sent outside the EU and that it has to be kept secure. A small number referred to keeping the data for only as long as necessary and that it should not be excessive.

## Q2(a)

Many candidates gave good responses to this question demonstrating a good overall knowledge and understanding. Many candidates identified that it was more accurate although many lost marks for just giving 'accurate'. Some responses included reference to dangers to humans, or weather conditions having clearly learned a 'standard' answer for the use of such systems.

## Q2(b)
There were very mixed responses to this question. Whilst many were able to identify that a sensor was able to detect physical quantities others went on to lose the mark by using 'detect changes'. Many mentioned 'device' but few identified a sensor as an input device.

## Q2(d)(i)
A seemingly very straightforward question but very poorly answered, and on occasion not even attempted. Those candidates who did score, typically scored 1 mark for "continuously changing" or "any value". Many candidates seem to think that analogue is an old fashioned signal that has no place in the modern world.

A number of candidates gave answers in C2di that scored 0 but which would have gained marks if offered for C2dii.

## Q2(d)(ii)

This part of the question was answered far better than (i). Some candidates lost marks for suggesting digital format was "easier" or "cleaner" or "more accurate" or "faster", for the computer and / or the user.

Of those who did gain marks, "so the computer can understand", "digital is in 1s or 0s", and "computers cannot understand analogue" were the most common correct responses.

## Q2(f)
Few candidates were able to gain full marks and on the whole the question was very badly answered. Many candidates took the boxes given and created a flowchart with them, instead of identifying that the temperature had to be under or over a certain figure. Candidates often included 'between 22 and 28' and others lost marks by mixing up < and >.

Others omitted the arrows and many took the flowchart to the 'Stop' box.

## Q3(a)

A very mixed range of responses, with a large number scoring well and an equally large number failing to achieve any success. A significant number confused the operating system and the CPU.

## Q3(b)(i)

Generally this was not well answered, with many candidates failing to gain any marks.

Many candidates failed to read the question and gave an icon and an explanation for one response. Others discussed colours, graphics and layout. Those who understood the requirements generally scored well.

## Q3(b)(ii)

Many candidates made no attempt at this question. However those that did make an attempt generally scored well demonstrating a good level of knowledge and understanding.

## Q4(a)

This was one of the better parts of the question, with many candidates giving good responses.

The most popular correct responses were interviews, questionnaires and surveys. Many candidates gave very vague references to asking questions which could not be credited. A large proportion thought that the 'try it herself' approach was appropriate whilst many others cited the various stages of the systems life cycle, often in random order; testing and validation were also frequently discussed.

## Q4(b)

Candidates generally made reasonable attempts at this question and many achieved at least half marks.

## Q4(c)

It was pleasing to see the majority of candidates gaining good marks here, an area which has been less successful in previous years.

## Q4(d)

This question proved to be difficult for all but the best candidates and many made no attempt at all.

Those candidates that had covered the subject area showed a good understanding and knowledge; others made wild guesses at what was being asked.

Where candidates were able to correctly identify a method the descriptions were usually very good, although a number mixed up Phased and Pilot.

# GCSE ICT - 1185/01 & 3185/01

## General Comments

The standard of work this year was of a similar standard to previous years. Centres that gave candidates clear guide lines and focused projects gave their candidates the chance to maximise their marks. There are however still a number of centres that fail to give clear instructions or allow their candidates to attempt unsuitable projects.

Projects are on the whole focusing more on the evidence require and therefore becoming smaller in size but there are candidates who are still including far too many hardcopies of their solution.

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.

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


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

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

Evaluation
- Evaluation of Objectives
- Users comments
- Further improvements

## Internal Standardisation

It was occasionally apparent that internal standardisation had not taken place, despite having a signed OPTEMS declaration to the contrary.

Centres still seem to be awarding marks on the candidates' perceived ability and not on the evidence contained in the project work. This makes it very difficult to moderate and can affect the marks for the whole centre.

## Annotation

A high number of centres, despite repeated comments in previous reports, are still not giving 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 very little extra annotation apart from the extended marking features.

## Administration

Some centres made it very difficult for moderators by failing as follows:

- To send the correct sample of work
    - Highest and lowest marked candidates work is required
    - If any asterisked candidates have been withdrawn candidates they should be replaced by other candidates

- OPTEMs
    - Marks not written on OPTEMs
    - Marks on OPTEMs were not the same as candidates work
    - Teacher had failed to sign OPTEMs

- CCCS
    - No indication of standard or extended marking

## Standard and Extended

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 project marks significantly reduced due to the lack of extended evidence. Several centres using the new mark sheets showed no design evidence of extended tasks but still awarded marks in the extended range.

One of the best ways to make sure a piece of work is extended is to mark the design section and make a list of the extended features, then check that the extended tasks have been evidenced in the implementation. The mark grids on the Edexcel website have space for this.

Only the extended tasks that are in both sections count towards extended work.

**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.

Candidates should not be using technical terms at this stage but should be describing the objectives in user terms.

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

General – centre marking of this section was poor this year with lots of centres giving high marks to candidates for better English rather than evidence of a more detailed analysis directly relating to the problems solution.  Those candidates at Grade C and below find it very difficult to produce anything other than generalised bookwork answers in this section.

Hardware – more able candidates are focusing on the specific hardware to solve the problem. Lots of candidates do not list cameras or scanners when images are required as part of the solution and then only the top candidates are adding meaningful detail related to the problems solution.

Software – only the software that relate solely to the candidate's solution is required and the choice should be justified by using the objects.

Input – to score high marks candidates need to include examples of actual data stating how it will be collected and input into the system. Most candidates may find a table format is useful.

| Data | Type | Collection | Input | Validation |
|---|---|---|---|---|
| Cost of product | Currency (2DP) | From Invoice | Keyboard | Not negative |
| Number in stock | Integer | From stock take sheet | Keyboard | |

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 often lacks the detail required to gain high marks. To improve on this, 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. For some problem types e.g. DTP, WP and Multi Media this section is very important with lots of justified details required. Candidates should have at least two alternative ways of formatting the output. This can also include references to the user interface.

Backup – this should relate to the solutions backup and not the candidates' 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.
An increasing number of candidates used memory sticks for backup. These can only be used if it is clear that they are being used as other types of backup media and are stored in a safe place between backups.

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

**Design**
- Initial Designs
- User Comments
- Final Designs
- Test Plan

This is a section where the evidence is very important, lots of centres are giving high marks for the design when the evidence to support it is missing or lacks detail.
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 therefore hand drawn designs are preferred.

Designs should be regarded as working documents; crossings out and changes are acceptable as long as the designs 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.

When candidates are manipulating images, the original image should be printed out with annotated 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 and teachers would benefit from checking the designs against the 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 implementation.

Most candidates included user comments.

Test Plan - although some candidates produced excellent test plans including the data that would be used in the testing, most candidates test plans were poor. The test plan can only score high marks if it contains test data. While all of the objectives need to be tested candidates also need to fully test the problems solution. If their objectives are poor then testing then does not mean high marks can be scored. It is good practice to test every formula in a spreadsheet, every search in a database and all the extended tasks. Candidates limit the marks that can be awarded if a test plan is not included.

**Implementation**

Marking - centres are reminded that if no real design exists the maximum a candidate can score for implementation is 2 and it cannot be an extended project. The inclusion of hardcopy evidence of the testing cross referenced to the test plan needs to be present for a candidate to score more than half marks on this section.

Candidates are still producing far too much hardcopy in this section. There is no requirement for candidates to include screenshots showing each step in the implementation process.

This should consist of three sections:

- Evidence of error correction

    o  3 to 5 annotated printouts showing the work at different stages of the implementation

- Evidence of the implementation of the test plan

    o  Maximum of one annotated printout per test, in practice several tests can often be shown on one printout
    o  Evidence should be cross referenced to the test plan
    o  Ticking a box on the test plan to say the test has been completed without the relevant hardcopy evidence gains no marks

- Evidence of the problems solution

    o  This needs to include any evidence that has not already been printed out
    o  If the test plan fully tests the solution then further hardcopy evidence may not be required
    o  Evidence of extended work. 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

A lot of candidates failed to show that the problem had been solved. This usually occurred when candidates' evidence of implementation consisted of a series of cropped screen shots. This is not recommended as it fails to produce enough evidence to show that the problem has been solved. Spreadsheets were especially a problem if the moderator cannot see the row and column headers.

Hardcopy evidence of the testing being done linked to the test plan needs to be present for a candidate to score more than half marks on this section.

**Evaluation**
- Evaluation of Objectives
- Users comments
- Further improvements

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

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

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

**Notes on Specific Problem Types**

<u>Spreadsheet Solutions</u>

**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, e.g. 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. For example, what the column and row headings are and the position and look of the buttons. 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. For example, 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 references to the evidence is enough.

A letter from the user stating whether they have solved the problem and maybe some things they would like to add or change.

The candidate then needs to explain if the additions or changes are possible. They may also have some comments on how they would change it in the light of their attempted solution.

<u>Database Solutions</u>

**Identify**
The lack of quantative objects often got candidates 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. 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 will not need to see the table design. The user comments can be written on the back of the designs.

The final 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.

**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

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

A letter from the user stating whether they have solved the problem and maybe some things they would like to add or change.

The candidate then needs to explain if the additions or changes are possible. They may also have some comments on how they would change it in the light of their attempted solution.

## 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 problems are not normally a one off solution. Magazines are often produced monthly, but very few candidates try to design a template for repeated use.

A magazine where candidates need to create three 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 making 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 alternately left and right
- The editor requires a front page with a full colour picture in the background

**Analyse**
Hardware - 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 actual data may be unimportant. E.g. 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 inputs, 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, 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. Images will require size and the graphics file location and name.

If the candidate is using manipulated images, then the original should be printed in the design with annotation as to the changes that are going to be made. If they are creating an original image then an annotated hand drawn design is required.

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 graphical images, then the original pictures should be in the design section with annotated notes on the changes and the altered pictures will appear in the finished solution. The evidence required is one screen shot of the image in the graphics package.

Since the final version will need to be printed as the evidence of testing, there is no requirement to print another copy without the testing annotation.

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

A letter from the user stating whether they have solved the problem and maybe some things they would like to add or change. 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.

The candidate then needs to explain if the additions or changes are possible. They may also have some comments on how they would change it in the light of their attempted solution.

<u>Multimedia Solutions</u> (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 cannot be printed have been used. One of the simplest ways to achieve this is to add an extra column onto the test plan for the teacher to initial.

| Test No | Reason | Data | Expected Result | Teachers Signature |
|---------|--------|------|-----------------|---------------------|
| 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 (SS) | Check home button returns user to main menu page | Home button on profit sheet | Clicking on button will close profit sheet and open main menu | |

Candidates should be encouraged not to print slides out one per A4 page. As long as the text is readable the candidate can print out 3 or 4 to a page.

**Animation is not an extended feature.**

<u>Web Page Solutions</u> (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.**

<u>Word Processing Solutions</u> (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 2009

## Overall Grades

The figures given below are the minimum subject marks required for each overall grade in the summer 2009 examination.

### (1185/2F) - Coursework & Written paper

*(Foundation Tier)*

| C | D | E | F | G |
|---|---|---|---|---|
| 57 | 47 | 37 | 27 | 17 |

### (1185/2H) – **Coursework &** Written paper

*(Higher Tier)*

| A* | A | B | C | D | E |
|---|---|---|---|---|---|
| 78 | 67 | 56 | 46 | 37 | 32 |

## Overall Grades

The figures given below are the minimum subject marks required for each overall grade in the summer 2009 examination.

### (3185/2F) - Coursework & Written paper

*(Foundation Tier)*

| C | D | E | F | G |
|---|---|---|---|---|
| 55 | 45 | 36 | 27 | 18 |

### (3185/2H) – **Coursework &** Written paper

*(Higher Tier)*

| A* | A | B | C | D | E |
|---|---|---|---|---|---|
| 84 | 72 | 60 | 48 | 37 | 31 |

**1185/01 – Coursework - Raw Boundary Mark**

| Grade | Max. Mark | A* | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|---|---|
| Raw boundary mark | 168 | 144 | 124 | 104 | 84 | 67 | 50 | 33 | 16 |

**3185/01 – Coursework - Raw Boundary Mark**

| Grade | Max. Mark | A* | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|---|---|
| Raw boundary mark | 84 | 72 | 62 | 52 | 42 | 33 | 25 | 17 | 9 |

**Note**:

**Raw Boundary mark**: the minimum mark required by a candidate to qualify for a given grade.