GCE EXAMINERS' REPORTS

ICT
AS/Advanced

SUMMER 2015

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ICT

General Certificate of Education

Summer 2015

Advanced Subsidiary/Advanced

IT1

Principal Examiner: David Rudge

General Comments

Very few candidates failed to number (or title) their pages or did not refer to where the evidence was in their answer for question 10. There does seem to be a trend that candidates are given complex spreadsheets or semi-complete spreadsheets which they put some data into. This approach does not help candidates as they do not understand their work and consequently cannot answer many of the sections in Q10 and score much worse than candidates who have produced their own simpler spreadsheets. Too many candidates think that they can gain marks from their 'common knowledge' of ICT but invariably they give trivial response which are not worth a mark.

Specific Questions

1.   (a)   A few candidates had text book answers e.g. find information on network configuration or writing small batch files but the majority of candidates gained no marks for the use. A minority thought that they were commanding the computer orally. More could give a benefit though.

    (b)   Candidates lost marks for not providing a concrete use. 'In-car navigation system' or 'Mobile phone' is insufficient. Candidates needed to add e.g. 'to plan a route' or e.g. 'to dial the number of a friend'.

    (c)   All too often candidates referred to devices by their trade names and thus did not gain a mark. The majority of candidates could have written e.g. steering wheel (device) to control a simulation of a car race (use) however, many did not name the device and when they did, again did not give a concrete use. Not many candidates could give an appropriate advantage for this type of interface.

2.   (a)   There was one mark for describing two of the following – 'correctly targeted', 'understandable', 'relevant' and 'up-to-date'. All too frequently candidates stated that, for example, up-to-date was data which was up-to-date for no mark as they were using the term itself to explain itself. Some of the weaker candidates wrote about 'correct' when 'accurate' was precluded by the question. Normally, more marks were obtained from the example than from the description.

    (b)   Some candidates wrote very generally or described the terms that they hadn't used in part (a). Where candidates were specific good marks were obtained.

3. A reasonably answered question as most candidates could give some advantages of a LAN. Often candidates lost marks because they gave answers that were not indicative of solely a LAN and were too general for this level. For example – 'files can be shared'. They can on stand-alone machines by using a USB stick.

4. Candidates lost marks by not providing a 'Why'. For the query candidates generally gave a correct definition and then wrote for example 'To find patients with asthma'. They need to go on and give a sensible reason for this search, for example to find patients for a trial of a new asthma drug. If the candidates wrote this then they got the mark for the Why. A frequent misconception for import/export was that candidates gave an example which did not make it clear that import/export was occurring, but could be done by cutting and pasting or that they used the terms themselves to explain them.

5. Candidates had to explain the advantage and not simply state for example 'repetitive processing'. Again candidates struggled with providing examples. For data storage capacity candidates understood that millions of records can be stored on a hard drive but they would have obtained additional mark if they said, for example, which holds all the records of patient details in the local hospital.

6. Most candidates obtained at least one of the two marks, but a significant number still wrote about data or hardware which were precluded by the question.

7. Some candidates did not understand what an expert system is and wrote about CAT/MRI and monitoring of patients for no marks. Most could identify the three main components of an expert system but only a few could describe them. Benefits and drawbacks were generally answered well although, 'Do not need to leave home' was insufficient and the candidate needed to explain why. 'Not having common sense' also needs to be explained further.

8. (a) (i) Candidates often did not appreciate that the bars are of differing widths. However, the main incorrect answers involved what is coded within the bar codes. The price clearly cannot be, otherwise a retailer could not alter the price and all retailers of the same item would be all the same price. Candidates also need to realise that they are code numbers not words.

   (a) (ii) Most candidates scored at least a mark here but some candidates gave benefits and drawbacks of stock control for no marks.

   (b) Candidates' spelling and grammar was sometimes poor in their answers to other questions but few lost marks in this question where spelling, grammar and technical terms were being assessed!

   Candidates did not appreciate that the process after scanning involved checking/comparing the product number from the bar code with the product number in the stock database. Once a match is found the stock held is decremented. Candidates lost marks by not making it clear that orders are submitted automatically and by not mentioning what the stock level was being compared with.

   Benefits and drawbacks tended to be well answered although many candidates thought that stores would NEVER run out of stock. Candidates sometimes wrote about communication failure but rarely was it sufficiently explained to gain a mark.

8. (c) (i) Most candidates knew what EFTPOS stood for although there were a few candidates that tried to fit words to the acronym resulting in some creative but wrong answers.

    (c) (ii) Candidates lost marks because they wrote about the advantages of on-line purchasing of goods or give disadvantages.

9 Often poorly answered because candidates did not give a benefit in context. In fact occasionally candidates wrote, for example, 'Accurate calculation in context', clearly they had taken 'in context' from previous Chief Examiner's reports.

10. Centres have clearly informed candidates of the requirements to number the pages of their spreadsheet documentation and to refer to these pages when answering these questions. Only a few candidates lost marks because the examiner was unable to find the evidence. Nevertheless there were still candidates who did not heed this advice and did not reference their work and consequently lost marks. Some candidates merely referenced their work using just titles for example, 'It is on my Invoice page'. This should be discouraged. Whilst examiners will have searched through candidates work looking for the titles, it is possible for evidence to be missed. Furthermore the use of plastic wallets/folders is not recommended. Would candidates also not use coloured backgrounds or produce printouts with tiny print - it is difficult to read the data/formulae and candidates could be disadvantaged as the evidence might not be clear enough to support.

    All four parts required candidates to write **what** they used the function/feature for and why they used it. Candidates were generally very poor in saying **why**. Again the question therefore needs to be asked about how well they understood the spreadsheet that they produced and therefore how much of it was their own work. Candidates who have wrestled with getting, for example, an IF statement; multiple IF statements; validation routines correct, are very unlikely to forget why they were needed within the spreadsheet.

    In part 10d some candidates took no notice of the instruction not to include any formula listed in 10a whether they had used them or not.

General Certificate of Education

Summer 2015

Advanced Subsidiary/Advanced

IT2

Principal Examiner: Noreen Kay

GENERAL POINTS

Most candidates presented clear and easy to follow coursework portfolios with many centres providing the detailed one sheet marking grid and explanatory comments. This aided the moderation process and helped us to support the marks awarded by the teacher.

Note electronic submission is not acceptable at present.

ANALYSIS.

Background

Again this was well done.

Identification of 3 documents

This was much improved with candidates supplying and identifying three different types of document and for each type of document, outlining its purpose and its potential audience.

Ethos or house style

Although this area is beginning to improve there are still some centres that award marks for descriptions rather than an analysis.
Candidates should look at the three documents collectively, **not individually**, and ask themselves two questions.

- What is the house style/ethos?
- What tools and techniques are used to portray this image?

Some candidates are still not being analytical and only describe colour schemes, fonts etc. This is a piece of **analysis** not a description. It is not the mission statement of the company or a general description gleaned from a website.

Analysis of an organisation's documents

This has improved but is still the most troublesome section. The comments are the same as last year. Where mistakes are made it tends to be made by the whole centre. **Therefore it is a centre interpretation problem.**
Candidates must think of this as three sections.

1. *Analysis of two paper DTP documents*
2. *Analysis of an automated document used by the organisation*
3. *Analysis of organisations website or a presentation used by the organisation*

For Section 1 the candidate must;

- Describe the data and label four different DTP techniques used in two paper DTP documents from their organisation. Newer centres are referred to the additional detailed teacher guidance on how to mark this unit produced by WJEC.
- They cannot use their own documents created in task 1 task 2 and task.
- They cannot say 'potential documents' for this section and they cannot use a website or presentation or their automated document.

For section 2 the candidate should try to obtain an automated document.

However if this is not possible, they can take an approach of what would be to identify a process which could be automated and result in a potential 'automated document' the organisation could use.
The must describe in detail the data and the mail merged fields no matter which approach is used.

For section 3 the candidate should analyse the organisation's website or a presentation used by the organisation.

If the organisation does not have a website they can analyse the website of a similar organisation.

If there is no similar organisation they could describe in detail, the data and multimedia and web features (not DTP features) that would be contained within a potential website for their organisation.

NB It is only for the automated document and website that they can take this 'potential' approach. The same mark scheme applies whichever approach they take

As this is the most troublesome section, it is worthwhile to re-iterate the mark scheme.

Section 1   Detailed analysis of two <u>paper</u> 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.

<u>1 mark</u> is for identifying the **data/information** on **both** paper documents

This is a description of the information contained within both of the paper documents, what does it say?/what is the content?/what are the images?/ what is the logo? General statements of purpose are not detailed enough.

<u>1 mark</u> is for identifying at least 4 different DTP tools and techniques on either one document or between both documents.

NB.
- the latter does **not** include fonts and fonts styles
- does **not** include clipart/logos unless some photo editing feature is identified.
- all 3 of bold, centre and underline must be present and can only be awarded as 1 mark.

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.

Section 2   Automated documents.

The mark scheme states;
<u>1 mark</u> for a description of the purpose, data/information contained in the document and audience of an actual document or a potential document.
The description of the data/information is in the same detail as the paper DTP documents. A general statement about the purpose is not enough.

*<u>**The second mark**</u>* is for listing/identifying in detail the individual fields which would be in the database linked to the document.

Therefore, for example, name and address are too general and should not be awarded a mark

They need to list Title, Firstname Surname, etc.
Some centres are still giving the mark when candidates just say 'address block' and this is too vague.

Section 3 Webpage or presentation

This was generally well done but it is still worth noting the following for new centres.
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 incorrectly 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 describe four **different** multimedia features but some Centres still gave full marks, (not three hyperlinks counting as three features).

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

Purpose: well done.

Image/ethos/house style.
Some candidates still confused image or ethos or house style with the target audience. Candidates should ask themselves two questions.

- *What house style/image/ethos do I want to portray?*
- *How am I going to get that image over in my leaflet?*

In order to gain the mark candidates need to explain **how** they are going to get over their chosen ethos or house style in the document, not just describe their colour scheme. They should stress why this colour scheme? Why this font style? Why this imagery?

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

Detailed design of the document

This was very much improved.

- 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 **8 special features** 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.

Design cannot be inherent! Design marks cannot be applied to an implemented leaflet. There must be evidence of a design process so either hand drawn designs if DTP is used to produce the design. The latter must clearly be design and not a first draft of the leaflet.

Use of basic features

Again this was well done.
Candidates **must printout** the final document.

Only features which appear on the final printed leaflet will be given credit.

Some candidates clearly showed the construction of the header and footer/ page number but this does not appear on both sides of the final printed document and should not be credited. The only extra evidence required in the evidence of basic features is screenshots of the origin of two different sources of graphics.

Use of advanced features

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.

This was usually well done with clear evidence but for new centres it might be worth mentioning the following again.

Only features which appear on the final printed leaflet will be given credit.

NB Problem areas

- *Customised tables.* This is cell merging or rotation of text within a cell not shading borders or cells.
- A reminder that layering is not moving two objects so that one is on top of the other. It is showing the objects, one in front and one behind and then reversing their positions.
- Before and after evidence of line spacing must be clear. Sometimes there is no perceptible difference in the evidence or in the position of the text on the final document.
- Many candidates could have improved their reports by providing clear before and after screenshots for:

  - different paragraph formats
  - own tab settings
  - own indents
  - dropped caps

Superscripts and subscripts are both needed and it is essential that a screenshot of before and after evidence is provided.

Task 2: <u>AUTOMATED DOCUMENT</u>

Many of the mistakes this year were similar to last year.
Purpose: well done

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** not just say address block: - what are the actual fields to be used?
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.
Some *'designed'* letters looked identical to the template letter and could not be awarded any marks.

Use of Basic Features

This was generally well done but some centres did award marks when there was a clear spelling or capital letter mistake or inconsistencies in the use of capital letters in titles.
Again it is worth noting that **any** spelling or grammar mistake in the database or the letter will be penalised. Candidates should also check for capital letter mistakes in the data from the database.
Most candidates did ensure they had the contact details and the date on the letter or else the letter would not be a suitable format for a professional letter.

Use of Advanced features

- Again this was well done but some candidates need to think about the 'professionalism' of their macros. **Silly, nonsense macros** should not be credited e.g. first macro puts in Yours; second macro puts in sincerely; third macro puts in a comma.
- Candidates should **not** be given credit for macros which already exist on the toolbar **e.g. print and save.**
- There is still a problem with copy and paste macros in a very small number of centres. **NOTE: NO copy and paste macros.**
- Please note that **unless the <u>macro code</u> is included,** no marks should be awarded for macros even if construction evidence is there.
- Saving as a mail merge template is still poorly evidenced.
  Some candidates continue to crop the evidence, especially when saving their mail merge template. It is not saving letter headed notepaper or a blank page. It is saving the mailmerge template/skeleton which has the linked fields embedded in it. The dialogue box is often on top of the mailmerged letter so the moderator cannot see it is the mailmerged fields.
- 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. This shows that the code provided for the macros is linked to that mailmerged template.
- Candidates who re-use their mailmerge template must include the template version of the new letter as well as the letters with the merged records.
- If candidates misinterpreted the mail merged template as letter headed notepaper, they did not achieve this mark.

Task 3:   <u>WEBSITE OR PRESENTATION</u>

Again the evidence for this was generally very good. Most centres chose to produce a presentation rather than a website.
The main problem areas were the detailed design of data including images and the extra mark for features such as hyperlinks, hotspots, bookmarks, animations, transitions, background template, sound, video and animations

Basic features
<u>Background style</u>
This must be original and not chosen from a library of design styles.
They were generally very well done.

Animations and transitions using **INTERNAL** features of the software provided for candidates use.
Again usually very well done.
For new centres it might be useful to note for candidates doing web pages that:

- For animations candidates could use scrolling banners /leader boards/interactive galleries etc.
- For transitions they can use rollover buttons or edit the html coding to change the colour sequence from one page to another. If the software has linked features, another alternative for transitions could be interactive image effects.

Evidence must be clearly provided. **It must be made clear** if the technique is used as transitions and not repeated for animations.

Hotspot/hyperlinks and bookmarks were generally well done with good supporting evidence.

Advanced features

Use of Sound
Again well done. Most candidates now attempt to capture sound or create original sound rather than load sound files in from a library or backing store in order to gain the extra mark.

Use of original video.
Please note that the storyboard is for the original movie not the animation. The level of detail in most storyboards was very good but some did not put details of **timings and effects** used on their storyboard.

It must be an original video. Candidates should take their own video footage or take their own original photos for use in the film.
If they use images from the internet it is not original and should not be awarded this mark. They could still be awarded the two marks for editing.

Many candidates produced their own original individual video and applied effects but some provided heavily reduced or cropped screenshots so it was difficult to see the evidence. Candidates should be encouraged to annotate their screenshot evidence with at least a title to say what the screenshot is showing.

Use of original animation using EXTERNAL software packages
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

The quality of evaluations has steadily improved. Most centres are more demanding, expecting more detailed and critical analysis before awarding the marks. However some seem to award marks for very shallow evaluations lacking any analysis and in these cases, moderators could not support the centre marks. Again this section was a clear differentiator with a wide variety in the standards of candidates' quality and quantity of answers.

COMPRESSION AND STORAGE TECHNIQUES
Centre understanding of this section of the mark scheme is now very good for the most part. 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 of the techniques used.
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.

ICT

General Certificate of Education

Summer 2015

Advanced Subsidiary/Advanced

IT3

Principal Examiner: David Rudge

General Comments

Candidates found this paper a little harder than in previous years but they continued to write well. It was also interesting that the standard of spelling and grammar on Q12 was significantly better than on the rest of their papers. It was also disappointing to see the increase in the number of centres which did not get their candidates to answer in the correct booklets.

Particular Questions

1.   Well answered with most candidates gaining at least 4 out of 6. Candidates dropped marks by mixing up the factors and talking about the disabled, consistent layout or layout appropriate to the task, which were precluded by the question.

2.   Again well answered by most candidates. Marks were dropped by candidates being not precise about the disabilities, for example 'lacking mobility and needing a voice interface' when they should have referred to arms. Paralysis often raised a similar issue. Candidates at this level should be talking about font size rather than text. Many references were made to Stephen Hawking's use of technology.

3.   It was surprising to see the number of candidates who stated the definition of FTP, when it was not requested. Most candidates were either unable to give two distinct uses or didn't mention the exact data and to where it was from/going. The commonest advantage was the one about file size.

4.   Most candidates were able to give three differences but tended to give cost and knowledge factors twice each. Weaker candidates also lost marks by being too vague i.e. not saying why a peer to peer network was cheaper.

5.   The best answered question on the paper with most candidates being able to gain 3 marks.

6.   A significant number of candidates gave answers to do with monitoring pupils, such as which websites were being visited or about tasks that would be done at the server, such as managing passwords.

7.   Most candidates were only able to gain to marks on this question from travel time and costs.   Unfortunately weaker candidates tended to treat the question as a standard one on teleworking rather than video-conferencing.

8. Not very well answered, either because the very weakest candidates did not know what the techniques were or could not state on who/what they were applied. Candidates also tended to give the same general points for both and need to study the wide range of points given in the mark scheme.

9. To gain marks, candidates had to describe the areas but a significant number only just stated three or four of them. Strong candidates answered well.

10. Most candidates were able to name the three different methods but failed to give a good description or example for the method and sometimes confused what each one actually did.

11. Most candidates could only gain three marks on this question. Weaker candidates could not really give operational procedures, only discuss some actual methods/expansions.

12. Candidates tended to enjoy this question and a number of interesting and wide ranging answers were seen. Weaker candidates tended to repeat the same thing over and over again and just wrote about the same sub-point, for example censorship in every possible form.

13. Most candidates were able to gain half marks on this question by being able to name the threats and give examples of 2 of them. Weaker candidates either did not give many consequences or tended to duplicate them. Hacking and viruses are not threats in themselves.

14. Poorly answered as many candidates thought that they were discussing the good and bad points of a MIS rather than the effective ones that were requested.

15. Most candidates could give the appropriate definitions. Common errors were: forgetting the 'staged' and the 'inconsistencies' in the data normalisation definition, the 'decision making' from the data warehouse and 'patterns' from the data mining.

16. Most candidates could only give one of the two factors stated on the mark scheme.

17. Candidates dropped mark by giving the same basic point for data mining as they had used for data warehouse. To get the two marks for data mining they had to develop the same point rather that give two simple factors.

18. The worst answered question on the paper. Candidates still seem to confuse distributed processing with distributed databases and couldn't apply the knowledge to a hotel. Marks were also dropped because candidates didn't give two distinct problems and when they did they merged the solutions. There are two distinct problem areas, the databases in the hotels and during transmission.

General Certificate of Education

Summer 2015

Advanced Subsidiary/Advanced

IT4 RELATIONAL DATABASES

Principal Examiner: Noreen Kay

GENERAL COMMENTS

Some new centres do not understand the specification requirements and should note the comments made in the moderator report and look at exemplar material provided by the WJEC on their website.
Some candidates are doing a great deal of work producing reports of over 500 pages, most of which does not meet the specification requirements.

Again many high quality projects were seen. Most of the samples submitted showed that most centres have a clear understand the requirements of the specification.

Again many centres provided helpful teacher comments and marking grids to show where marks had been awarded.

Some new centres should note that the project is in the following separate and distinct. sections:

- Background and Analysis of User requirements
- Design
- Implementation
- Testing
- User documentation
- Evaluation

BACKGROUND AND ANALYSIS

To assist new centres it is worth re-iterating the areas of misinterpretation in the hope they will not be repeated next year.

Background

1 mark is for general background.
1 mark is for describing what data handling / data processing goes on in the present system.

Some centres were giving 2 marks when there was no mention of data or data processing systems in the current system.

Analysis and user requirements

For full marks there should be a detail description of:

- data and outline data structures required
- data capture methods and input methods
- data processing including all calculations and searches
- outputs required from the system
- user documentation requirements
- security and suggestions for backing up the database
- the desired house style.

This should be written up **as though an end user had been interviewed or consulted** in depth. It should not appear to be a retrospective list of what they did in design or candidates should lose a mark.

Hardware requirements

Note hardware must be a complete list including mention of keyboards, mouse, type of monitor, type of printer, USB port or other backup devices.

User interface requirements
This was well done 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.

<u>DESIGN</u>

Again it is worth noting that implemented features are not design. No marks can be awarded under design for implemented features. There must a clear and separate section and no database should exist at this point.

Design of queries
Although greatly improved, this is still one of the biggest problems.

- Candidates doing the same topic e.g. a caravan park must produce different queries.
- Candidates doing different topics must produce different queries. It is doubtful if when all candidates in a centre base their first query on a search for a certain town.

Again some candidates do not seem to be able to differentiate the purpose/output from the query and why that output is needed.
e.g. 'The purpose of this query is to produce a list of sales in Aberaeron'.
This does **not** explain the **reason** why a list of sales in Aberaeron is required by the manager. It only describes the output from the query not why the information is required. Therefore this type of *'reason'* should not be given a mark.

A **reason** would go on to say 'because the manager wants to compare Aberaeron sales with other areas to assess performance and see if an advertising campaign is needed to boost sales'.

Although only in a few centres, there is still some confusion about the number and type of query required in the new specification.

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**
  SORTS ARE NOT ACCEPTABLE FOR THESE QUERIES.
- 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,*
    - *sort data*
    - *produce a calculation. NB This must be a separate and different calculation to the one done in a different query or form or report so if this is the use for this query then 3 different calculations need to be done for full marks.*

- 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**.

In total there a six queries required. Candidates who design the wrong type of query could go on to lose implementation and testing marks.

Design of validation

Most centres now understand that:

- **Two <u>different types</u>** of validation techniques are required not two range checks.

- **Not presence checks unless the =null statement is extended with something original other than the default selection. Not ticking must be present.**

- **Not data type checks.**

- **Drop down list /combo boxes and input mask wizards provided by Access are not acceptable** as suitable validation techniques at A2 level. Candidates are required to be more original. Validation using input mask wizards should not be awarded any marks in design implementation or testing.

- A problem arose with Access 2010 when OR validations were correctly designed and implemented. However testing them was difficult when it was automatically turned into a combo box. **If the construction was clearly shown** then it was still an acceptable validation otherwise it is assumed to be a list create by a wizard.

NB There should still be a test.

Design of reports

Again improved but centres should note:

- Candidates should design and implement **<u>original</u>** headers and **<u>original</u>** footers. Many design original headers but use the default footers.
- **Calculations do not form part of the original footer**. They are already awarded a mark and so there must be something else e.g. web address / catch phrase / email address etc. are the commonest.
- **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() by itself 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

Again centres should note:

- Timers / =Now() etc. / =Date() by themselves are not regarded as sufficiently complex to count as and automated routine.
- Design of buttons to go from form to form or close forms etc. (wizards) are not original code.

<u>IMPLEMENTATION</u>

Most candidates gave good evidence of implementation. There must be an implementation section where all table forms reports etc. are shown in design view.
Validations should be shown and code for automated routines must be included.

The following points were made last year but in a few centres they caused problems this year so it is worth repeating them.

- Reports must have original headers and original footers. Many implement original headers but use the default footers. Original footers **do not** include date/page number generated by the wizard. It does not include a result of a calculation or function as this will already have been awarded a mark.
- Suitable **<u>test data</u>** should be used **<u>to show</u>** sorted and grouped data on the final report not just construction evidence.
- Therefore this should be evident in the data in the final report not just in construction.
- Reports with only one record cannot show sorted and grouping worked. Two reports, one showing sorting and a different one showing grouping are not acceptable. The sorting and grouping must take place in the one same report. This will not show if the test data is not suitable.
- Calculated fields in the report should total up data from <u>more than one record.</u>
- Calculations in a report must be a different calculation to that used in a form or query.
- Candidates should create their own macros not use the wizards on buttons in forms. They should create macros which perform two <u>different </u>functions not just two navigation macros.
- Splash screens and security VB should be more clearly separated out as two different routines. Candidates are advised not to merge them into one routine.
- Creation of original (not button wizard) macros. The new version of Access originally caused some centres problems. It would appear that most centres using the new software have no difficulty in creating original macros and in using VB.

- Creation of original code.
- Should centres need to use existing macros for original code **they must edit the existing code to perform some extra function** or this is not acceptable. If candidates have restrictions put on them by network managers and can only edit a macro, then the additions must be substantial not just a message box or a timer.

TESTING

Most candidates had good and detailed test plans but some candidates wasted time by testing every data entry and every navigation button and this is not required.
Again centres should note that

- 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). It is not good enough to simply say 'yes it works as you can see in my screenshot' How do we know that is the correct total? 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 if they form part of their automated code routines.

USER DOCUMENTATION

This is much improved but the main problem area is still the add, edit and delete a record which:

- In user documentation candidates should need a before and after screen shot not just say fill in this form/ make the changes you want/ press a button. It is **not enough to say click a button** when describing how to add, edit, delete data.
- Candidates should note 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 query are actually run, including complete descriptions of any parameter queries.
- Disaster recovery needs recovery instructions not just backup. Disaster recovery should be extended to a detailed description on how their own database can be recovered and reinstalled not just backup. It also requires a level of detail. An essay about general backup procedures and why we do them is not acceptable.

EVALUATION

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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