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# **GCE EXAMINERS' REPORTS**

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## **INFORMATION AND COMMUNICATION TECHNOLOGY AS/Advanced**

**SUMMER 2016**

Grade boundary information for this subject is available on the WJEC public website at:  
<https://www.wjecservices.co.uk/MarkToUMS/default.aspx?!=en>

### **Online Results Analysis**

WJEC provides information to examination centres via the WJEC secure website. This is restricted to centre staff only. Access is granted to centre staff by the Examinations Officer at the centre.

### **Annual Statistical Report**

The annual Statistical Report (issued in the second half of the Autumn Term) gives overall outcomes of all examinations administered by WJEC.

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**ICT**  
**General Certificate of Education**  
**Summer 2016**  
**Advanced Subsidiary/Advanced**  
**UNIT 1**

**General Comments**

It was disappointing to see so many candidates displaying poor exam technique and not reading the questions properly and then giving answers which were already precluded.

Q.1 (a) Fairly well answered by most candidates but marks were lost by:

For data giving units e.g. 10.3s this makes it information or stating what it was before giving the values.

For knowledge, the rule was missing. 'The swimmer in lane 3 was the fastest' rather than hence won the race.

Weaker candidates only tended to give one example.

(b) Quite well answered. Many candidates had obviously learnt the text book examples but takes up less storage space is too vague and needs a reference to where it is stored. Some candidates confused encoding with encryption. No marks were awarded to pupils who thought that encoded data could lead to confusion e.g. BI could be interpreted as blond, blue or black. Similarly some candidates thought that encoded data is more difficult to read if you do not know what the codes mean. Candidates also lost marks by trying to give the same example for both problems. Marks also cannot be awarded twice for giving an advantage of one as a disadvantage of the other.

Q.2 Many candidates found it difficult to give specific uses of the interfaces. 'GUI are used on tablets, computers, mobile phones' is too vague. The candidate needs to ask themselves 'To do what?' – 'Calling a person on a mobile phone', 'Navigating between pages on my tablet so I can select an App' would have given them the mark. CLI remains a total mystery to some candidates and this would suggest that it has not been demonstrated to them.

Q.3 Many candidates did not read the question properly and so lost easy marks. The question stated, 'Other than speed of transmission and the ability to attach files' and yet some candidates wrote about attachments containing viruses or that emails can be sent around the world in seconds'.

Again candidates wrote answers which were often too vague. Just writing Viruses, Hacking, Phishing, Spam did not give candidates the mark, at this level, unless they gave an implication e.g. 'Viruses can damage your computer or corrupt files. Spam clogs your Inbox.

Q.4 Candidates lost marks here:

For templates, word processed documents were sometimes referred to instead of presentation software. Some candidates only referred to design and did not consider that some basic information such as the company's name or a logo could be included.

Most candidates understood what animated transitions were but some referred to effects on text or images for no mark.

Few candidates were able to give a benefit of data compression.

Q.5 Most candidates were able to state at least 1 advantage but only some were able to illustrate each with proper examples.

Q.6 A number of candidates were unable to give a reasonable definition of data verification, mark schemes have given a number of appropriate versions and one of these should be learnt. Weaker candidates seemed to think that verification of a password occurs all the time rather than when setting up an account. Candidates would benefit from studying this area rather than rely on the general interpretation of the word verification.

Q.7 The weaker candidates often wrote a great deal without gaining many marks. They did not adequately consider the impact ICT has had on music and photography as a form of home entertainment and leisure. For example 'You can take lots of photographs, you can print them and edit them' all need qualifying. 'You can take lots of photographs and keep only the ones that you like', 'You can print out the better photographs and thus save money'.

Q.8 (a) Candidates were only allowed one mark for a biometric method. Candidates frequently failed to gain the mark for using administration software on e.g. a tablet because they failed to appreciate that the teacher is using specific piece of software for the purpose. Some candidates suggested that they were using a spreadsheet – for no marks. Some candidates also wrote on manual methods.

(b) Generally this was not as well answered, with many candidates confusing the advantages of distance learning with those of CAL or giving the same ones for both. This is another area where candidates would benefit from studying in depth.

Q.9 Most candidates were able to give an advantage or a disadvantage. Marks were lost for vague answers such as stating that 'such forecasts are not accurate' or stating 'that an expensive computer was required'. On the whole fairly poorly answered.

- Q.10 Teachers are not benefiting their candidates by giving them a template which they just add data to. Weaker candidates tended, consequently, not to understand the spreadsheet or what the formulae did. Many candidates did not properly understand the use of VLOOKUP in particular. A few weaker candidates explained the use of functions in generalised terms rather than referring to their application. Candidates would score better if they produced their own simpler spreadsheet from scratch
- (a) Some candidates lost marks by the inappropriate use of SUM for example =SUM(E3+E4) or =SUM(E3\*5). Again a large number of candidates were unable to state why the function was used.
  - (b) Candidates lost marks for vague answers about the VLOOKUP and could not state what was being looked up or what was being used to do it with. The two advantages of using the function tended to be poorly answered.
  - (c) Candidates lost marks for not naming their validation technique; furthermore, candidates sometimes used inappropriate validation techniques. A length check is not appropriate for a person's name or for a postcode (postcodes can be 7 or 8 characters and a format check would be better).
  - (d)
    - (i) Candidates provided evidence of producing a macro but often poorly described its use. To say that 'A navigational macro goes from a page back to the home page', is too vague. Also evidence was often a simple shape which may or may not have been linked to a macro. If candidates use their own shapes then they must provide evidence of the code.
    - (ii) Most candidates now give a before and after screenshot. Some candidates incorrectly thought that a sort, the find function and VLOOKUP are appropriate searches. Often candidates did not state why they had carried out the search. Answers such as 'I wanted to find all the customers who lived in Newport' are too vague, need to say why.
    - (iii) Candidates tended to get just one mark for stating what was being displayed, but failed to state why they produced the graph. 'To find the best-selling salesman' does not answer the question why.

**ICT**  
**General Certificate of Education**  
**Summer 2016**  
**Advanced Subsidiary/Advanced**  
**UNIT 2**

**General Comments**

Many centres have a very clear understanding of the requirements of the specification and hence many are marking accurately.

Some very high standards of work were seen in all three tasks.

Centres should note that candidates' work should be submitted on paper and not on disc or USB.

Where centres are misinterpreting the mark scheme it is in the same areas as in previous years. Centres should ensure they see a copy of the moderator's report as some centres make the same mistakes each year.

Most areas were well done but it is worth re-iterating comments made about some problem areas.

New centres are reminded that exemplar material and marking guidance is available to download from the WJEC website.

**Background and Analysis**

**Analysis of ethos or house style by looking at three documents produced by the organisation.**

Although this area is beginning to improve there are still some Centres who 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 still 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 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 organisation's website or a presentation used by the organisation*

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

**For Section 1. Detailed analysis of two paper based DTP documents.**

The candidate must;

- Describe the data and label four different DTP techniques used in two paper DTP documents from their organisation. DTP features do not at this stage include font styles, font sizes. Clipart or logos. 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 and task 2.
- They cannot say potential documents for this section and they cannot use a website or presentation or an automated document.

We are looking for the purpose, **data** and audience of both documents.

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

General or even extended statements of purpose are not enough.

This is a description of the information contained within both of the paper documents, what does it say? what is the content?/ what does the text describe? /what are the images? / what is the logo?

**1 mark** is for identifying at least 4 different 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.

### **For Section 2 Automated Document**

The candidate should try to get an automated document.

An alternative approach would be to identify a process which could be automated and result in a potential 'automated document' the organisation could use.

The mark scheme states;

**1 mark** 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.

**The second mark** 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

Candidates need to list Title, Firstname Surname, etc.....

Just saying name and address or address block is not enough detail. There should be a breakdown of the actual fields.

### **Section 3 Webpage or presentation**

The candidate should analyse the organisations 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 that would be contained within a potential website for their organisation.

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. Three hyperlinks do not count 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 again to be congratulated on encouraging pupils to give clear evidence enabling moderators to support most centres' marking in this section.

#### **Image/ethos/house style.**

Some candidates still confused image, 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 needed 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? This would serve to communicate the house style or image they are trying to portray.

- **the final leaflet must be printed out and included in the coursework.**
- **marks should not be awarded for any feature which does not appear on the final printed document.**

#### **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! There must be evidence of a design process so either hand drawn designs if DTP used to produce the design. The latter must clearly be design and not a first draft of the leaflet.

#### **Use of basic features**

Some candidates clearly showed the construction of the header and footer, page number, but this did 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.

### ***Customised tables***

This is cell merging or rotation of text within a cell not shading borders or cells.

For all other advanced techniques further evidence is required.

### ***Customised bullets***

These must be constructed using graphics from an external graphics file or clipart package and not the wing/webdings or fonts available internally in Word.

### ***Layering***

A reminder that layering is not moving two objects one is on top of the other. It is showing the objects, one in front and one behind and then reversing their positions.

### ***Line spacing***

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.

### ***Superscripts and subscripts***

Both need to be used and it is essential that screenshot before and after evidence is given or candidates will not be awarded the mark

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

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

## **Task 2: Automated Document**

### **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 where there were 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**

- 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 few centres.
- **NOTE: NO copy and paste macros.**
- please note that **unless the macro code 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.
- 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.

### **Task 3: Website or Presentation**

Again the evidence for this was generally very good. Most centres chose to do a presentation rather than a website.

#### **Basic features**

##### ***Background style***

This must be original and not chosen from a library of design styles. These 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 that 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 some edited 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, this was 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.

Videos downloaded from YouTube are not original videos.

Many candidates must produce their own original individual video and applied effects but some gave much reduced sized 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. However some seem to award marks for very shallow evaluations lacking any analysis and 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 the files they used and justify their choice of technique(s) used.

A few centres **still incorrectly** awarded marks for;

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

**ICT**  
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**Advanced Subsidiary/Advanced**  
**UNIT 3**

**General Comments**

It is disappointing at this level seeing the number of candidates who do not read the questions thoroughly and give answers which are precluded.

- Q.1 Most candidates were able to describe at least 1 way in which a HCI could satisfy the needs of novices or experts. Only the better candidates were able to explain what the needs themselves were. A study of the mark scheme would benefit the majority of candidates and give them the level of detail needed.
- Q.2 This question was fairly well answered but candidates lost marks by mentioning speech recognition or voice output which were specifically precluded. Weaker candidates were also too vague in their statement of the disability.
- Q.3 A number of weak candidates gave cost as one of their factors. Performance is only a factor if it is stated in terms of reliability or user friendliness or capacity or speed of processing. Security can be condoned as a factor if in the explanation there is a reference to the level of risk not the bland viruses and hacking.
- Q.4 A significant number of candidates gave 'fault tolerant' as a benefit of star topology and also seemed to confuse the question with one about peer to peer and client server.
- Q.5 Weaker candidates would benefit from learning the definition of distributed computing as they confused it with distributed databases, which went on to spoil their examples and hinder them in question Q6. Others could only give one example.
- Q.6 Even so this was fairly well answered with most candidates getting at least one advantage/disadvantage.
- Q.7 Again a significant number of candidates gave order tracking or email confirmation as answers. Weaker candidates also gave both secure payment methods and shopping trolley but only one of them can gain a mark.
- Q.8 Weaker candidates tended to confuse this with a question on the advantages and disadvantages of wireless networking or teleworking. The answer also had to imply use of IT not just working on the move.
- Q.9 From the better candidates some very thoughtful answers were seen but a significant number just tried to rehash answers for a more general question on the dangers of the internet.
- Q.10 Again it was disappointing to see candidates giving penalties as an answer and the number of candidates who couldn't give examples of what the code should contain and only give problems.

- Q.11 Most candidates gained 2 marks here but threw away marks by discussing the risks themselves. Weaker candidates also seemed not to be able to give 2 factors or confused the examples that went with them.
- Q.12 A significant number of candidates thought that they were answering a question on an effective MIS and some confused the factors with each other or only gave part of them.
- Q.13 The question precluded design of input methods and then a significant number went on to discuss them. Candidates would have scored better if they had remembered the aspects of design that they covered in their database project. It was also disappointing to see the number of candidates who did not attempt this question. This was one of the worst answered questions on the paper.
- Q.14 This was quite well answered with most candidates being able to give 2 fears. Candidates did lose marks by not being clear why workers were afraid.
- Q.15 Candidates lost marks by rather discussing methods that would be to stop deliberate misuse or did not give different methods. At this level candidates need to expand on backups by giving more detail on how/when it is being done.
- Q.16 Weaker candidates lost marks by using backups which was a possible answer for Q15. Candidates also dropped marks by giving distinctly different methods.
- Q.17 Most candidates could explain what a relationship was but only the best candidates seemed to realise what entities and attributes were even though they should have used them in their coursework i.e. entity- relationship diagrams.
- Q.18 On the whole well answered with most candidates being able to give 2 possible tables. If the question is read carefully, it tends to lead candidates to appropriate tables. Candidates lost marks by not indicating which were primary and foreign key fields, or by giving the same foreign key in both tables.
- Q.19 Better answered than in previous years, with the majority of the candidates who attempted the question being able to state two factors. Candidates did lose marks by mixing up the extensions.

**ICT**  
**General Certificate of Education**  
**Summer 2016**  
**Advanced Subsidiary/Advanced**  
**UNIT 4**

**General Comments**

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. Only a few, mainly new centres do not understand the specification requirements and should note the comments made in their moderator report and look at exemplar material provided by the WJEC on their website.

Many Centres are making exactly the same mistakes as they made last year. Centres are advised to always view their moderators report even if no scaling has been applied.

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

**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.

This was improved but there was still the odd slip. NB 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

Well done.

## Design

- 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.
- centres should encourage candidates to produce different queries with different reasons if they are doing a similar topic e.g. a stock control system.
- reasons for queries must be sensible.
- again some candidates do not seem to be able to differentiate the purpose/output from the query and why that output is needed/reason.

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

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

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.**

## Design of validation

Centres and candidates should remember that this is A2 work. Therefore they should be encouraged to produce higher end validation techniques.

An or list on Title or Gender are not suitable A level choices.

Most centres now understand that;

- **two different types** 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 created by a wizard.  
NB There should still be a test.

## Design of reports

Some of the mistakes are exactly the same as in previous years.

Again improved but centres should note;

- Candidates should design and implement **original** headers and **original** 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 an automated routine.
- Design of buttons to go from form to form or close forms etc. (wizards) are not original code.
- Candidates should not be using the existing library of macros and claiming them as their original code.

## Implementation

Most candidates gave good evidence of implementation. There must be an implementation section where all tables, 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 again 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 **test data** should be used **to show** sorted and grouped data on the final report not just construction evidence.
- therefore this should be evident in the data in final report not just in construction.
- reports with only one record cannot show sorting 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 more than one record.
- 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 different 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 VB routines.
- 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;

When testing a parameter query a value should be typed in. If the date is set in search criteria then this is not a variable parameter but a specific search criteria.

- 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

In user documentation some candidates need a before and after screen shot of;

- add a record instructions. Candidates must complete the new empty form with data in the 'add record' section.
- edit a record. Candidates must show before and after sensible changes.
- delete a record. Candidate must either show the delete record warning dialogue box or before and after screenshots.

Disaster recovery needs recovery instructions not just backup. Disaster recover should be extended to a detailed description on how their database could be recovered and reinstalled not just backup. It also requires a level of detail.

## Evaluation

Generally marks are agreed but some slightly generous as candidates could have been more critical and analytical.



WJEC  
245 Western Avenue  
Cardiff CF5 2YX  
Tel No 029 2026 5000  
Fax 029 2057 5994  
E-mail: [exams@wjec.co.uk](mailto:exams@wjec.co.uk)  
website: [www.wjec.co.uk](http://www.wjec.co.uk)