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General Certificate of Education

Applied Information and Communication Technology 8751, 8753, 8756, 8759

IT10 Advanced Spreadsheet Design

Report on the Examination

2008 examination – January series

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Dr Michael Cresswell Director General.

Unit 10: Advanced Spreadsheet Design (IT10)

General comments

Nearly all candidates provided evidence of setting up a spreadsheet system for a client. Although the spreadsheets were still generally unambitious, they demonstrated a good knowledge of the chosen software.

Most candidates used a variety of complex spreadsheet features but these tended to be included as additional facilities rather than being an integral part of the spreadsheet system.

Organisation

Some candidates failed to number the pages of their scripts as instructed in the candidates' booklet. A proportion of scripts were not submitted in the appropriate order (a) – (k) as requested in the candidate booklet.

Some pages submitted did not include the name, centre number or candidate number.

Some work was not bound. A treasury tag is sufficient to ensure that work reaches the examiner in the correct order. Some candidates submitted work including blank or upside-down pages. Candidates should be taking responsibility for ensuring that work is presented in a manner that is fit for purpose.

Choice of project

As this is an Applied ICT specification the emphasis is on real tasks. Candidates should be steered away from unrealistic scenarios as these tend to lead to assumptions being made by the candidate which result in candidates failing to achieve the higher grades.

Investigation Time

Task (a)

Most candidates attempted to break up the tasks and allocate an appropriate amount of time. Those who thought carefully about what was required, broke tasks down into appropriate smaller subsets and estimated the amount of time required to carry out the tasks, achieved the second mark.

Some candidates simply repeated the tasks (a) to (k) listed in the candidate's booklet and so received no marks.

Task (b)

Candidates should answer the question 'Why does the client need a spreadsheet?' Most candidates described why a spreadsheet was needed. Better candidates went on to explain the benefits that the client would gain by using the spreadsheet system.
Similarly, most candidates described the skill levels of the user in some way. Those who went on to describe how this would affect the design of their spreadsheet system gained the second mark.

Task (c)

Most candidates produced a list of some client needs. Better candidates gave these needs in detail and explained how they would affect the design of their system.

Some candidates stated that the client needs were to include six advanced software features. An example was 'my client wanted macros.' Clearly these were not the needs of the client but the requirements of the Specification.

Few candidates described the inputs, processes and outputs in much detail, if at all, although this is an important part of describing the needs of the client. It was rare to see any mention of input/output formats or to see sample input and output data, although descriptions of processing were occasionally included when formulae were being described. Candidates should describe the required outputs and also the inputs that are necessary with any processing needed to produce these outputs.

Some candidates listed required hardware, i.e. input devices, and not the data that has to be input. This is not needed and does not gain additional marks.

Task (d)

On the whole, this was done well, but some candidates simply repeated their client's needs as evaluation criteria.

A common evaluation criterion was 'Have the client's needs been met?' without breaking this down into smaller parts.

It is important that the client needs are turned into questions that can be used to assess whether the system has been successful or not in producing what is needed and also whether it works in the manner that it was intended to.

Task (e)

Most candidates produced annotated designs that could have been implemented quite easily by a third party.

A few candidates submitted screenshots of their 'designs' in the actual spreadsheet software. Designs should be produced prior to implementation and should not be created using the same software as used for

the implementation carried out in the controlled conditions. If software is used to produce the designs, then it should be stated what was used. Using printed blank spreadsheets is acceptable.

Very few candidates annotated their designs with client comments, although some did document discussions that they had with their client and then provided revised designs. Candidates who provided evidence of client feedback during the design process gained higher marks than those who did not.

Task (f)

Although candidates generally managed to produce a test plan, rarely did they describe their test strategy. The strategy should say what is going to be tested, why and when. The strategy is not concerned only with functional testing and should include sets of test data. Many candidates had plans that tested macro buttons and validation to exhaustion but did not test, for example, that the calculations were correct or that data was correctly transferred from one worksheet to another.

Controlled conditions

Centres are reminded that controlled conditions means examination conditions and that clear guidance is provided in the Teachers' Booklet about what is and what is not allowed.

Several centres seemed to be unclear about what is allowed to be taken into controlled conditions sessions. The Candidate Booklet and Teachers' Notes make it clear that no electronic files may be taken into these sessions.

There was evidence that some candidates had access to their normal user areas and email during the controlled conditions. This should not be possible during controlled conditions.

Task (g)

Overall this was the section where many candidates failed to achieve high marks. Most candidates managed to test individual parts of their spreadsheet system, simple functional testing, but evidence of integration testing was rare. Candidates should provide evidence of data being entered and followed through the system to show that the resultant outputs are correct, thus showing that all parts of the system work together.

Candidates should have specified appropriate data sets for testing the system in task (f), enter this data and check that the outputs match the expected outputs.

Task (h)

There were some good examples of the use of facilities provided within spreadsheet software. Candidates generally did not do enough to explain how the spreadsheet system that they had created related to the needs of the client and this reduced the marks that could be awarded to them.

The better candidates linked much of their work to the client needs stated in task (c).

Common problems with documenting the development of the spreadsheet system included:

- Screenshots cropped so that cells referenced in formulae were not visible, so that it was impossible to see whether the formulae documented were correct
- Screenshots cropped so that formulas were not visible
- Screenshots cropped so that sheet names and file names had been removed
- Poor colour choice resulting in illegible screenshots
- Screenshots being too small to read

Several candidates printed worksheets in formula view, showing exactly what formulae they had set up. This is to be recommended, as long as the printouts are complete and legible.

Generally there was a large amount of superfluous material in the submitted work. This included, for example, user documentation, hardware and software requirements for the client and step-by-step implementation reports.

Candidates do not need to document every step of how they inserted some feature of the software such as recording a macro or formatting the borders of some cells. It is sufficient to show the completed feature such as the coding of a macro or a screenshots of the cells with the borders formatted as these will indicate to the examiner that a macro has been created or that the borders have been formatted.

Few candidates seemed to understand what is meant by a reusable spreadsheet system. This is one that can be used again and again, either by using a template to set up a worksheet, or by including facilities that automatically delete old data and prepare the worksheet for subsequent use.

Some candidates listed the advanced features that they had used. Several tried to claim credit for features which are standard and not advanced, such as the SUM function, simple formulas or creating a chart. Examples of advanced features can be found in the Specification and Teachers' Guide for this unit.

Task (i)

Many candidates made reference to their evaluation criteria and the client's needs in their evaluation. The best candidates based their conclusions on objective evidence in the form of test results and screenshots to prove that these criteria and the client needs had been met.

Task (j)

Most candidates did monitor their progress compared with their original time plan and those candidates who explained rather than stated, any alterations achieved two marks.

Task (k)

This was generally pleasing. Candidates had made a lot of effort to ensure that their work was well described using good technical language.

Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the **Results statistics** page of the AQA website.