## **General Certificate of Education**

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

## IT10 Advanced Spreadsheet Design

# **Report on the Examination**

2010 examination – June series

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### Unit 10: Advanced Spreadsheet Design (IT10)

#### General

All candidates provided evidence of setting up a spreadsheet system for a client revealing a good knowledge of the chosen software. Some candidates produced a very high standard of work which was very pleasing.

However we still see a large number of **made-up clients**. The client's needs are very important in this unit and without a real client, it is difficult to establish any client's needs.

#### Organisation

Some candidates still fail to number the pages of their scripts as instructed in the candidates' booklet.

Nearly all scripts were submitted in the appropriate order (a) - (j) as requested in the candidate booklet.

#### Choice of project

Several candidates submitted booking systems such as for booking facilities at a leisure centre or renting a DVD. Spreadsheet software is clearly not the most suitable software for database applications like these.

Many candidates submitted invoice systems. This is a very good application but only in a few cases did the output actually look like an invoice, with the client name, address, telephone number, date, invoice number, etc. Again this suggests no real client. A real client would insist on these items appearing on the invoice.

Candidates should be steered away from unrealistic scenarios and those more suitable for solution using relational database management software.

#### **Investigation Time**

#### Task (a) - Time plan

Some candidates only identified the tasks during the investigation time. Other candidates simply copied the tasks (a) - (j) from the Candidate Booklet.

Most candidates scored one mark on this section and those who thought about this carefully and broke the tasks down into appropriate smaller subsets in a logical order with estimates of the time required could gain two marks.

#### Task (b) - Background information

Candidates are expected to answer the question, 'What is the problem the client has and how could a spreadsheet solution be used to address it'.

Most candidates gained one mark by stating why a spreadsheet was needed. Those who went on to explain the benefits to the client of using the spreadsheet solution gained the second mark available. Candidates are also expected to identify the user(s), consider their skill level and state how this will affect the designs for their proposed solution. Most candidates were awarded one mark for identifying the user and their skill levels. Those who went on to describe how this would affect the design of their system gained the second mark.

#### Task (c) - Client needs

Nearly all candidates identified some client needs. Better candidates gave these needs in detail and explained how this would affect the design of their proposed system.

A significant number of candidates are now presenting inputs, outputs and processing in a table. Work submitted continues to be brief with little detail. It was rare to see any mention of input or output formats, or to see sample input and output data.

#### Task (d) - Evaluation criteria

Most candidates identified some quantitative and qualitative criteria. Some candidates gained higher marks by relating their evaluation criteria to the client's needs in part (c). It should be remembered that qualitative criteria such as the layout of input screens need to be assessed by the end user and therefore should be assessed by consideration of the design work shown to the client.

#### Task (e) – Designs

Nearly all candidates produced some designs. The quality was variable with some designs scruffy and some minimalist; the better ones were fully annotated, could easily have been implemented by a third party, included client comments about the designs and identified features that linked to the client's needs.

#### Task (f) - Test plan

More candidates are now managing to produce a test strategy and to list the test data to be used to test the spreadsheet. The use of data sets for testing should be encouraged to help reduce the number of individual tests required and improve integration testing.

Most candidates produced some sort of test plan. Sadly very few candidates included a test plan that tested the whole system from beginning to end.

#### Controlled conditions

Centres are reminded that controlled conditions means examination conditions and that clear guidance is provided in the Teachers Notes about what is and what is not allowed. Any queries should be addressed to the ICT Subject Manager.

Students should be reminded that no electronic files, including image files, may be taken into the controlled conditions sessions.

#### Task (g) - Testing

Most candidates tested some parts of the system but few tested the system as a whole.

Many candidates tested validation extensively without testing that the outputs were as expected.

Some students demonstrated that they understood the purpose and function of testing through their use of sensible, predetermined data sets that reduced the number of tests that were required.

#### Task (h) – Implementation

There is **no need** for candidates to provide screenshots of every stage of creating the spreadsheet system. It is sufficient to provide screenshots of

- The final worksheets (in normal and formula view)
- Macro coding
- Evidence of the system being reusable
- Explanation of how features used meet the client's needs

Conciseness is important in ICT reports and candidates should be reminded that quality comes before quantity.

Some very good examples of the use of spreadsheet software were seen but candidates generally did not do enough to explain how the spreadsheet system that they had created met the needs of the client, by referring back to the original description of the needs.

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

The following are not needed and gain no credit:

- guides to using the software
- user documentation
- hardware and software requirements

#### Task (i) - Time planning

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

#### Task (j) – Evaluation

This was the first summer series using the new item (j) with up to 10 marks available for evaluation of the spreadsheet solution, self evaluation and written communication.

The majority of candidates provided evaluation comments that were related to the client's needs. The better candidates also identified their own strengths, weaknesses and areas for improvement.

The best candidates wrote clearly and fluently. Their work was well described, using good technical language, as well as being checked for spelling and grammar.

#### Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the <u>Results statistics</u> page of the AQA Website.