

### **General Certificate of Education**

## Information and Communication Technology 6521

## ICT6 Coursework: Use of Information Systems for Problem Solving

# **Report on the Examination**

2008 examination – June series

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It is pleasing to see that many candidates are implementing information systems as opposed to tasks appropriate to ICT3. Solutions need to be reusable and be genuinely operated by the end-user, over time, in the environment for which they were intended. There must also be a genuine end-user who can provide information during the investigation and be consulted at critical points e.g. testing.

Some centres are still over assessing the work of their candidates. The following issues should be carefully considered when assessing work for this module.

#### Analysis

Pleasing as it was to see centres assessing the work submitted in this section more realistically, it still remains the commonest cause of moderators being unable to agree with the centre marks. Candidates are required to clearly demonstrate their understanding of the problem. All too often the current system is presented as an overview. Candidates need to describe fully the information flows for high marks to be allocated. They should make use of appropriate investigation and analysis. Candidates should also ensure that all relevant aspects of the analysis are covered by discussing issues which are relevant to the problem for example describing the resources available but also describing any limitations of these resources for the particular proposed system.

End user requirements and the criteria for evaluation are all too often generic and do not relate directly to the candidate's own problem. A candidate who fully understands what is required from a solution and has a full set of appropriate evaluation criteria is all the more likely to tackle the implementation, testing and evaluation in a more confident and competent manner.

#### Design

The design work submitted continues to improve but neatly presented explanations of tables, forms, queries and macros does not always make a third party implementation possible. It is important that the design is broken down into sub tasks. Candidates should explain how the sub-tasks are to operate for example how will a piece of equipment that has been returned be recorded in a loan system? They can then show how the implementation objects for example a sub-form would be used to implement this design idea.

Candidates should also give a clear indication as to how the sub tasks link together along with the order in which they need to be developed.

The focus for testing must be on whether the solution developed can achieve its main functions. Disappointingly many candidates still continue to focus their test plans on "button clicks" rather than the functions they trigger and the data they operate on. Often there are repeated data entry tests many of which could be grouped and candidates who waste time retesting the validation facilities of the software itself. Testing needs to focus on processes including the output generated. Some candidates fail to show the hard copy output their solution produces. If a system is supposed to produce an invoice then one should be shown printed out, not as a print preview or a screen dump.

It is important that candidates should also address at this stage how the user will be involved in the testing phase. Formal planning for this stage in the testing process can only help the candidate in their attempt to achieve the requirements of the testing phase itself.

#### Implementation

It is good to see candidates continuing to produce effective and working solutions however all too often evidence of the work done is obscured by excessive screenshots of screens produced by wizards. It is sufficient for a student to say "I used the Form Wizard based on the student table to set up the Student Form", the student would use that form as the starting point to document the subsequent customisation they would carry out.

Students can only gain credit for work they have done and so they need to show evidence of their solution working and how it meets the end user requirements.

#### Testing

Unfortunately some candidates do not seem to have taken on board the need to use data sets for testing select or action queries which work on tables or sub-sets of data from those tables, for example to test a query which selects non-returned items in the last seven days.

The specification clearly states that end-user involvement must be "clearly evidenced and reflects full participation" to attain the highest mark boundary. High marks are still being allocated based on a simple letter stating the end-user has seen the system. It is expected that end-user acceptance testing will be planned for, carried out and fully documented.

#### **User Documentation**

For assessments to be in the upper mark ranges user documentation is expected to be comprehensive, including details of outputs produced and also issues such as end of year procedures if they are part of the solution. Too many students focus on taking the user on a tour around the interfaces and data entry forms without truly explaining how to operate the solution to achieve what it was designed for.

#### Evaluation

Evaluation work is often over credited. Candidates often simply reiterate what they have created without considering how useable and effective their solution is which often stems from the inadequate specification of criteria at the very beginning of the project and inadequate user involvement.

#### Report

The final report should be concise, clearly delineated, have page numbering and contents. It is pleasing to see that presentation standards continue to improve year on year. Guidance on the use of writing frames and templates provided by the JCQ should be followed.

#### 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.