



**General Certificate of Education (A-level) Applied  
June 2012**

**Applied Information and  
Communication Technology**

**IT13**

**(Specification  
8751/8753/8756/8757/8759)**

**Unit 13: Communications and Networks**

***Report on the Examination***

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## **Unit 13 – Systems Analysis**

### **General Comments**

The vast majority of portfolios sampled had been assessed accurately. Assessors were realistic about the work that had been produced. A full range of marks was seen.

The unit is about the investigation, feasibility and logical analysis for a proposed system (application). Many candidates followed the logical path through the portfolio and produced coherent pieces of work.

The important aspect of this unit is that is about Logical Analysis - there should be no preconception about how the solution will eventually be designed. Many candidates assume that they are going to be creating a database when, in fact, a database solution may not be the best conclusion.

There is no need to explain what methodology is being used, nor need for a detailed justification of using SSADM for the work.

### **AO1 – Practical analysis work – i.e. system specification production**

Most of the DFDs produced showed some understanding of their use, with many candidates meriting 2 or even 3 marks.

Process specifications were generally understandable and showed understanding, although one or two used query design sheets that were barely comprehensible. It is expected that flowcharts or Structured English will be used. Input specifications tended to consist of well-explained form designs and most candidates had included the extra information required – the data source, how it was to be entered and relevant validation. However, there were only a few who mentioned verification of the input data – without this information, the 3<sup>rd</sup> mark cannot be given. Output specifications tended to be report designs with little detail of how they were to be produced, or when, what the data fields are, or any calculations necessary.

Both the E-R Diagram and a Data Dictionary had to be present to gain 1 mark. Names of entities and field names should be consistent throughout the portfolio. The E-R Diagram must be accurate and the Data Dictionary must show relationships for more than 1 mark

The standard ways of working for this unit is shown by using the correct symbols in DFDs, E-R Diagram and Data Dictionary as well as showing sensible and logical folder and file names, version numbering and so on. Having proper naming conventions for the data fields is also necessary for the higher marks. Consistency of entity names is essential.

### **AO2 – Investigation**

Investigations tended to be clear and useful. Most candidates clearly understood the range of investigation techniques available to them and most chose the ones to use wisely. Observations and document analysis were generally done well and provided useful information.

The system descriptions varied in length, and some showed a clear understanding of the business processes involved for which a system was being proposed. Although not explicitly

required, a brief discussion of what is currently in place and any shortcomings would underline the need for a new or improved system.

### **A03 – Feasibility Study report**

Logically, AO2 row 3 is the start point for the feasibility report and is the introduction to the feasibility discussions about the proposed new or improved system.

Combined with AO2 row 3, most candidates clearly showed what the proposed system is for, and most candidates also included a comprehensive list of client needs. High level DFDs for the new system were produced by most candidates. Scope definitions were done well by many candidates, although they tended to be mainly about what was to be included, without considering what would not be included in their solution.

The discussions about hardware, software and personnel tended to focus on one or two of these areas, especially when there was a single client or user, or the hardware was not being changed. Some candidates gained all of the marks available by showing their clear understanding of these issues. Most candidates listed some constraints and attempted a cost-benefit analysis. A few candidates produced comprehensive costs and benefit discussions to gain both marks on that row, without resorting to making up cost figures.

Rows 6 & 7 – these need to be distinct from each other. Row 6 deals with what needs to go into the system, for example what functionality is required and how important each aspect is to a successful system; Row 7 is about then putting forward ideas as to what options there are for developing such a system and recommending the best one for the client.

Row 6 – Many candidates had a clear conclusion and, if they had prioritised what their system needed, then the 2<sup>nd</sup> mark was awarded.

Row 7 - There is no need to discuss the advantages and disadvantages of different software, except as to how the functionality of it will be useful to fit the requirements of the solution. Some candidates gained 1 or 2 marks on this row, but only a very few actually took their recommendations back to the client and adjusted them after feedback.

### **A04 – Evaluation**

Rows 1 to 3 – Time planning and management is the same across all A2 units.

Row 4 – Candidates could score 1 or 2 marks on the basis of their client needs and requirements given in the feasibility report (AO2, Row 3), but a few managed to gain further marks by saying how they were going to test the proposed system, in logical form, against those requirements.

Rows 5 and 6 – Many candidates had taken their analysis and design back to the client or their expert for checking. However, there must be witness evidence of this – a signature - to show that the words typed up by the candidate in any “actual result” column, are genuine.

Row 7 – Most candidates scored 2 or 3 marks for their written expression. For the higher marks on this row, the investigation write-up, the feasibility report and the systems specification should be presented as such, with separate contents pages, headers and footers and presented with proper sections.

### **Mark Ranges and Award of Grades**

Grade boundaries and cumulative percentage grades are available on the [Results Statistics](#) page of the AQA Website.