

General Certificate of Education (A-level) Applied June 2011

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 (IT13)**

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). Most centres correctly stopped at the logical analysis, although there was much evidence of assumptions about implementing the proposed system in a database package. Many candidates followed a logical path while producing the portfolio with the result that they produced coherent pieces of work.

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

### AO1 - Practical analysis work - i.e. system specification production

Most of the Dataflow Diagrams (DFDs) produced showed some understanding of their use, with many candidates meriting 2 or even 3 marks on the relevant row.

Process specifications were generally understandable and showed understanding, although one or two used database query design sheets that were barely understandable. It is expected that process flowcharts or Structured English will be used for specifying processes.

Input specifications tended to be form designs that were well-explained, and most candidates had included the extra information required – the data source, how it was to be entered and any required validation. However there were only a few who mentioned verification of the input data – without this information, the third available mark can not be given.

Output specifications tended to be report designs with little detail of how and when the report was to be produced, or what the data fields are, what calculations were required etc.

Both the Entity Relationship Diagram (ERD) 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 ERD diagram must be accurate and the dictionary show relationships for more than 1 mark

Marks for standard ways of working in this unit are gained by using the clear symbology in DFDs, ERD 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. Most candidates scored 1 mark at least, with the stronger candidates gaining 2 or 3.

## AO2 - Investigation

Investigations tended to be clear and useful, although some candidates confused the use of questionnaires with producing a list of questions for a single client. Some evidenced multiple interviews, some of which could have been avoided if the candidate had prepared themselves better for a single interview. Most candidates clearly understood the range of investigation techniques available to them and most chose 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 is being proposed. A few candidates appeared to be covering multiple facets of the company's processes, although most managed to draw in the scope later on. Most candidates scored 1 mark and many scored both marks here. 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.

### AO3 – Feasibility Study report

Logically, AO2 row 3 is the starting 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 system was for and most candidates also included a comprehensive list of client needs. High level DFDs for the new system were produced by most candidates, although a few simply repeated one that they had provided for the current system. 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/user, or the current hardware was not being changed. Some candidates scored all of the marks available by showing a clear understanding of these issues. Most candidates listed some constraints and attempted a cost-benefit analysis. A few candidates produced comprehensive costs and benefits discussions to gain both marks on that row.

Rows 6 & 7 – these need to be distinct from each other. Row 6 is dealing 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 second mark was awarded.

Row 7 - Some candidates scored 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 the 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.

Row 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 'actual results' recorded by the candidate are a true record.

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 divided into 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.

### **Converting Marks into UMS marks**

Convert raw or scaled marks into marks on the Uniform Mark Scale (UMS) by using the link below.

UMS conversion calculator www.aga.org.uk/umsconversion.