

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

## Applied Information and IT11 Communication Technology

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

**Unit 11: Publishing** 

# Report on the Examination

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### Unit 11: Communications and Networks (IT11)

The majority of centres assessed the portfolios of their candidates accurately. Portfolios were seen across almost the full range of marks.

The unit concerns specifying and creating a network for a client. The portfolio need only contain evidence required for the criteria in the mark scheme – there is no requirement to include class investigations about different topologies or types of network.

Some centres did this as a 2-part portfolio – with the AO1 practical work using a centre-set scenario in a lab in the school or college. In these cases it was generally easier to follow the practical evidence through, although the centres need to ensure they have the software available that has been specified, so that candidates can show they have followed the requirements. Candidates who had real business clients tended to produce better quality evidence for AO2 and AO3.

It is quite acceptable for candidates to investigate and set up wireless networks as opposed to wired ones, but in this instance considerations such as thickness of walls and greater security risks may be issues.

Some portfolios would have merited more marks through the use of witness statements. Few were seen that were personalised for the individual candidate.

#### AO1 – Practical work

Row 1 to Row 3 – To claim a client-server network has been set up, it is necessary to evidence installation of both the Client operating system and the Server operating system. The practical work can be evidenced by a variety of means. Hardware and operating system software setup can be by photograph or by witness statement, with precise, individualised statements. Installation of hardware or other application software and any necessary configuration is best shown using screenshots. Higher marks are only available for well-annotated work with explanations and justifications clearly given.

Row 5 – Standard ways of working specific to this unit are given on the marking grid. Discussion of these topics should be in relation to the designed or created network and NOT the candidate's own work. There is no need to see how the candidate organised their own work, nor any need for the candidate to give general ergonomic or health and safety advice.

#### AO2 – Client aspects

Having a real client makes a big difference to the marks gained in this section. It enables an interview to take place and real user requirements to be identified. These provide the basis for the planning of a network to meet those requirements.

Candidates need to show their understanding of organisational use of hardware and software. Multiple copies of software will most likely be required, a fact very often missed by candidates. Network-related software, such as operating systems (for client and server) and firewalls plus, if appropriate, internet access software is also likely to be required.

There is no requirement to give costs for the designed network, or to worry about a budget, for the purposes of the portfolio, as this is not an assessment requirement.

#### AO3 – Network specification

Row 1 – The physical plan of the office, factory or house should show major obstacles, walls, furniture etc. and should also show where the various nodes will go. Alongside this all connections need showing. To get a second mark technical details need adding, such as types of connector, MAC and IP addresses, workstation names and so on. These details could be shown in an accompanying table. For the third mark, a narrative description is required to justify the suggested layout.

Row 2 to Row 4 – Lists of hardware and software, with cut and pasted specifications only merit a single mark. Descriptions of components, decisions related to client requirements, and justifications are required to achieve higher marks.

Row 5 – Many candidates scored well on the configuration row, as the evidence for AO1 often showed operating system, hardware and application software configurations.

Row 6 – Many candidates only used the Internet for their research. If books or other sources were used, it was rare to see any explanation as to why, which was necessary for the highest mark on the row.

Row 7 – The implementation schedule was generally produced to a high standard, with most candidates scoring 2 or 3 marks on this row.

#### A04 – Evaluation

Row 1 – 3 Evidence for these rows generally came from the time plan with some candidates adding a diary. The time plan should not be based on lesson times only and it is completely unnecessary to add tasks that are not related to producing the solution. For instance, some candidates wrote tasks that were in fact what the teacher had taught them that lesson. Some tasks were written retrospectively, which is contrary to the concept of "planning". The self-evaluation of performance was generally quite weak, with candidates being unable to critically review their actions.

Row 4 and 5 – Evaluation criteria were generally not very well written – they should be based on the list of client requirements and phrased as questions, with the test plan being written in a detailed way that will allow those questions to be answered. Very few candidates produced evaluation criteria, correctly categorised, and a test plan that followed those criteria. In most portfolios only simple testing was shown, although one or two portfolios were of a high standard in this area.

Row 6 – This is different from Row 1 in that it should objectively review the network solution as created (or specified). Again, in only a few cases did candidates "critically" review their solution to gain 3 or 4 marks.

Row 7 – Because this is a technical unit, many candidates were able to gain 2 or more marks for use of specialist vocabulary, although this had to come from their own descriptions rather than from information cut-and-pasted from other sources. In addition, a clearly organised portfolio, with a contents page; logical sections; section headings, pages all the same way up and so on, was necessary to merit 3 marks or more.

#### 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.

#### **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.aqa.org.uk/umsconversion.