



General Certificate of Secondary Education

**Information and Communication
Technology 3528**

Specification B

3528/H Higher Tier

Report on the Examination

2008 examination - June series

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The written papers - Higher Tier (3528/H)

General

Most candidates attempted most of the questions on the paper. There were some excellent answers showing a good breadth and depth of knowledge at this level.

When answering the questions on the written papers, a few candidates gave the answers 'quicker', 'cheaper', 'easier', 'neater', 'more powerful', 'makes fewer mistakes', 'it could breakdown', etc. without further qualification, and credit was not given for these simplistic answers. More successful candidates explained, what is 'quicker', why it is 'quicker', what are the consequences because 'it could breakdown', etc. in relation to the context of the question. In addition, one word answers were not usually awarded a mark when a description or explanation was required. Similarly, no marks were given for repeating the question without elaboration, and vague, repetitive or inaccurate answers. Better answers related well to the context of the question, were detailed and accurate, used appropriate technical language, and had illustrative examples. It was not uncommon for candidates to be awarded marks because they had given a good example, where marks could not be given for a weak explanation or a vague description. Diagrams were sometimes poorly labelled and not well drawn.

Many candidates demonstrated a good standard of literacy and many answers were clear and well structured. However, some candidates expressed themselves very poorly. Such candidates often answered multiple choice and short answer questions with greater success and would have had better opportunities to fully demonstrate their knowledge and understanding if they had been entered for the foundation tier. It is likely that inappropriately entered candidates obtain lower grades as questions on the Higher tier paper are less accessible to them than questions on the Foundation tier paper, perhaps causing them to be awarded significantly fewer marks. Centres are urged to enter for the Foundation tier candidates who do not express themselves clearly in written English.

The marking of the Higher paper was computer based (e-marking). Whole written scripts are scanned and saved in electronic form, and each clip (subsection of a question) is marked separately. Each clip is marked in one of three categories: auto, general and expert. Auto marking is particularly appropriate for multiple choice questions; general marking for short answer questions and diagrams requiring a straight forward response; and expert marking for more complex and extended answers. Particular care is taken to ensure supplementary sheets are marked in association with the answers on the script. At the end of the marking period an audit of the e-marking process is carried out to ensure its accuracy. As a result of the e-marking process, item level analysis of candidates' responses is practical. The comments on specific questions are grounded in the judgement of the Principal Examiner; however, these are underpinned by reliable and accurate statistics.

Some candidates did not use black ink to write their answers and as a result these could be difficult to read.

Comments on specific questions:**Question 1**

Most candidates answered most questions well, showing at least a partial understanding. In 1aii, some candidates successfully described how to indent the entire paragraph; however, very few used the increase indent button, preferring to use other methods, such as, highlighting the paragraph then pressing the TAB key. Some candidates indented only the first line of the paragraph. In 1b, most candidates were awarded a mark in each part but beyond this some answers lacked sufficient detail to be awarded a mark.

Question 2

Most candidates answered most questions well. Some candidates confused memory and backing storage in 2aii. In 2b, some confused the functions of a modem and a router. In 2c, some candidates were awarded full marks but many candidates could not clearly describe two ways to increase the speed of Internet access.

Question 3

Most candidates answered most questions well. In 3a, some candidates confused the content of a spreadsheet cell with the format applied to it. In 3b, many candidates could not express the formula as `sum(D4:D8)` and were not awarded full marks. Almost all candidates understood the relationships in the spreadsheet and knew that cell D10 should be the sum of the cells above it. However, many candidates could not write down a formula that would work. In 3cii, few candidates explained clearly and concisely why the value in the cell identified in 3ci should change when the price of a generator is edited. Some candidates incorrectly referred to equations rather than formulae.

Question 4

Most candidates answered some questions well. In 4b, some candidates were awarded full marks; however, questionnaires were sometimes roughly drawn with many candidates showing little awareness of the need for a design that will facilitate data capture.

Question 5

Most candidates answered some questions well. A few candidates confused sensors and actuators in 5a. In 5b, few candidates were able to write an adequate description of feedback in this context. Most candidates seemed unaware of the cyclical nature of feedback, and a few candidates described meanings of feedback that are not associated with computer control. In 5c, almost all candidates identified at least one advantage or disadvantage. Some answers were not sufficiently in context and related to the garden centre. Some candidates knew that initial capital outlay would

be higher but operating costs would be lower, and a very few candidates knew that when control technology is used then without staff it becomes difficult to cope with unexpected events, such as broken windows.

Question 6

Most candidates answered some questions well. Answers to 6a often showed a lack of understanding of verification and confusion with validation. Very few candidates answered correctly and some candidates stated that the purpose of verification is to ensure data is accurate or correct and this is too vague to be awarded a mark. In contrast, answers to 6b often demonstrated a good understanding of the use of a range check for validation. In 6cii, almost all candidates correctly stated that the technician should check that the cable between the processor and monitor is present and connected properly, or that the power cables to the processor and the monitor should be checked, or that the monitor should be checked to make sure it is turned on.

Question 7

Many candidates answered most questions well. 7a was well done by most. In 7b, most candidates' understood the consequences of incorrect programming. In 7c, most candidates made a good attempt at the question; however, few answers were clearly expressed. Some answers were unconvincing, or did not indicate whether an advantage or a disadvantage was being described, or who it was an advantage or disadvantage for. Some answers showed a lack of understanding of the working environment.

Question 8

A few candidates answered most questions well. In 8b, most candidates made some good points although a full understanding of the impact of ICTs in developing countries was rarely evident.

Mark Ranges and Award of Results

Grade Boundaries and Cumulative Percentage Grades are available on the [Results Statistics](#) page of the AQA Website.