



General Certificate of Secondary Education

**GCSE Information and
Communication Technology
3521 Full Course**
Specification A

3521/H Higher Tier

Report on the Examination
2007 examination - June series

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General Comments

The standard of performance from the candidates in this paper appeared a little higher than last year. It must be remembered that in this specification, there are still elements of the theory that are difficult to teach through the practical coursework and these may be best taught in separate theory lessons. Again, most of the paper was accessible to the majority of candidates and it was very rare to see parts of the paper not attempted. The vast majority of the candidates were entered for the correct tier and as in previous years low scores were rare.

Question 1

Question one was well answered by most of the candidates.

Parts (a) and (b) of this question were very well answered by the vast majority of the candidates and full marks were quite common. Candidates at this level had a clear idea of a range of input and output devices.

Part (c) was also very well answered and most candidates were able to state what the abbreviation LAN stood for.

Similarly, most candidates could choose suitable advantages of a LAN from the given list and most candidates gained at least one mark.

Question 2

The ideas surrounding testing appeared not to be well understood by many of candidates (or at least they found them difficult to explain). This is surprising as candidates encounter testing sections in both elements of their coursework. Answers overall tended to be vague and often repeated the question as their answers. There were no parts of this question which more than half the candidates answered correctly.

Question 3

Overall, candidates showed a very good understanding of the spreadsheet in this question.

Parts (a) and (d) were very well answered, with correct answers being given by the vast majority of candidates.

Other parts of this question were also well answered, with most candidates gaining the mark for part (b) and part (c).

Surprisingly, just over half of the candidates could identify the correct disadvantage of using a spreadsheet. A common wrong answer was that the formulae could be wrong, which of course could also be true of a calculator.

Question 4

Parts (a)(i), (a)(ii) and (a)(iii) of this question were extremely well answered with candidates showing an excellent understanding of the process of ordering groceries on the Internet.

Similar questions on advantages/disadvantages of using the Internet have been asked on previous papers and candidates answers overall have improved. However, a number of candidates still try to give vague answers such as faster, cheaper and easier with little if any qualification.

In part (b), around three quarters of candidates were able to gain at least 1 mark for giving advantages of using the Internet to order groceries but a minority were able to gain both marks.

In part (c) three quarters of candidates were able to give a suitable disadvantage of ordering their groceries on-line.

Question 5

As with the foundation tier, some parts of this question on monitoring and control systems were well answered but other parts were not well understood by many candidates.

Part (a) was quite well answered with the vast majority of candidates gaining at least one mark and around three quarters of candidates were able to gain full marks.

Despite similar questions to part (b) on previous papers, only around half of the candidates could name a suitable device such as a heat sensor.

Answers to part (c) were also disappointing with only around a third of candidates able to give a sensible reason why there was a need for "such a device in each room".

Part (d) was answered correctly by many candidates.

Question 6

Most parts of this question were also well answered and many candidates were able to transfer their knowledge of ICT systems to a given application.

Although part (b) was well answered, it was disappointing that few candidates could not give another suitable input device such as a digital camera. Even more disappointing was part (c)(i), where over two thirds of candidates could not give a suitable output device such as a colour laser printer.

In part (c)(ii), most candidates gained at least one mark. A number of candidates gave brief answers such as e-mail. This gained one mark only as they also needed more detail, such as by an attachment to an e-mail.

Part (d) was extremely well answered with the vast majority of candidates giving the correct answer.

Question 7

As may have been expected, the vast majority of candidates could define the term e-mail and could give one advantage of e-mail compared to post.

However in parts (b)(i) and (b)(ii), fewer of the candidates could give a second advantage or a disadvantage of e-mail compared to post.

A common mistake was that candidates thought that video/sound clips could be added as attachments to e-mails but they could not be sent by post.

Question 8

Even at the higher tier, user interface questions are not usually well answered but many candidates were able to gain the mark for parts (a) and (b). In part (c), however, few candidates were able to give any other factor that needs to be considered when designing a new user interface. The most common correct answers were the use of colour or sound.

Question 9

Despite being an important element of the coursework, the concept of data validation is still not well understood by many candidates and in part (a) only few candidates gained both marks. A common error was that data validation was "fool proof" and would make sure that the answer was always correct.

Parts (b)(i) and (c)(i) where candidates were asked to state an error were both well answered. However, some candidates gave too vague answers that did not clearly identify the error. (e.g. in part (b)(i) they did not clearly identify that there was no entry for the registration group of Susan Carr).

In parts (b)(ii) and (c)(ii) most candidates were able to identify suitable methods of data validation to reduce the possibility of an error.

It was also pleasing to see three quarters of candidates could give a reason why a pupil name is not a suitable key field.

Question 10

The idea of computer simulators seem very well understood by the vast majority of candidates and they scored well in parts (a)(i) and (a)(ii). Perhaps this springs from their direct experience of related computer simulations/games.

In stark contrast in part (c), few candidates had any real idea of the term modelling with very few candidates gaining both marks.

Question 11

Parts (a)(i) and (a)(ii) of this question were correctly answered by the vast majority of candidates. However, the idea of observation being used to collect information was far less well understood and less than half of candidates could give a suitable advantage.

In part (b)(i) the vast majority candidates could link “planning the layout of reports” to the design section, surprisingly far fewer candidates answered correctly either (b)(ii) or (b)(ii). This was surprising given that these processes are integral to both coursework elements.

Question 12

Part (a) - the Data Protection Act part of this question was well answered with the vast majority of candidates scoring at least 1 mark for this part of the question (but few candidates scored all three marks). The most common wrong answer was “Information must be changed at the request of the customer”.

Overall parts (b)(i) (b)(ii) and (b)(iii) of this database related question were very well answered and this could relate to the increasing number of candidates who attempt a system project in their coursework, centred round a database solution to the problem.

Part (c) was also well answered with most candidates able to suggest a sensible additional table.

Higher candidates still found part (d) very difficult and only a minority could give a suitable reason such as the reduction in redundant data.

Question 13

This year’s essay style question was well answered by many candidates who had an understanding of some of the health and safety implications of the use of computers in an office. In part (a) many candidates were able to describe several possible health and safety implications, the most common correct ones being: -

Health issues

- Back/Neck pain/problems
- Headaches
- Eye strain
- Wrist problems/Carpel Tunnel Syndrome/RSI(finger problems)
- Possible radiation from monitor
- Possible epilepsy from monitor
- Overheating of the room

Safety issues

- Trailing wires
- Electrical faults
- Overload sockets/supply

In this part of the question a small minority of candidates gained all 5 marks. Around two thirds of candidates gained at least 3 marks and very few failed to score any marks.

Part (b) was also well answered and many candidates could give sensible steps to alleviate some of the problems outlined in part (a), some of the most common correct ones being: -

Health issues

- Regular breaks/walk around/relaxation techniques/fresh air
- Correctly adjusted chair/back support correct in chair/footrest
- Adjust monitor distance/brightness
- Visit doctor/eye test
- Use wrist support/ergonomically designed keyboard
- Check radiation level/change type of monitor/possible "screen shield"
- Use of air conditioning/ventilation

Safety issues

- Make sure all leads are secure/out of reach
- Repair faults/report faults
- Regular service and checks/PAT tests
- Use of blinds/fluorescent diffusers
- Install additional sockets

In this part of the question some candidates gained all 4 marks. Around half of candidates gained at least 3 marks and only a very small number of candidates failed to score any marks. Candidates who scored badly had a tenancy to come up with sensible one point and repeat for the rest of there answer, this usually scored one mark.

Mark Ranges and Award of Grades

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