Version 1.0: 0708

ASSESSMENT and QUALIFICATIONS ALLIANCE

General Certificate of Secondary Education

GCSE Information and Communication Technology 3521 Full Course

Specification A

3521/H Higher Tier

Report on the Examination

2008 examination - June series

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Set and published by the Assessment and Qualifications Alliance.

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General Comments

The standard of performance from the candidates in the written paper appeared similar to previous years. The mean for this year's paper was a little lower than last year, indicating many candidates found some parts of this year's paper a little harder to score marks on. It must be remembered that in this syllabus, 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 left not attempted. The vast majority of the candidates appear to be entered for the correct tier and as in previous years low scores were very rare.

Questions 1 to 4 (Multiple Choice Questions)

As in previous years, the majority of these multiple choice questions were well answered with many candidates scoring well on this introductory part of the paper.
In question 1 the term hard copy seemed familiar to most candidates and over half of them could identify that hard copy meant printed output.
In question 2 which was about the rights of data subjects, although almost half of the candidates gave the correct answer, a large number of candidates thought that the correct answer was that individuals data must never be passed onto others.
Question 3 was really well understood by candidates and almost all of them gave the correct answer, which was to reduce storage space.
In question 4, the majority of the candidates were able to identify the logical operator not usually used in the construction of database queries.

Question 5

Answers to part (a) tended to be vague and just under half of candidates were able to state or imply that copyright involved legal ownership of the clip-art.
A little surprisingly, in part (b) many of candidates thought clip-art is always free of copyright, rather than being sometimes free of copyright.
Part (c) however, almost all candidates were able to give a suitable penalty such as a fine, if copyright was broken.
The vast majority of candidates scored at least one mark on this part of the question but less than half of the candidates scored the full three marks. This was a little surprising, as similar questions have appeared in previous years and the use of DTP software is commonplace today.

Question 6

Part (a) of this question was well answered with almost all candidates gaining at least one mark for identifying the most suitable field type for the fields given. However, few candidates gained all four marks.
Part (b) was well answered and the vast majority of candidates could give at least one suitable additional field. Common correctly identified fields were-
- Mobile phone number/Emergency phone number
- National Insurance number
- Job title
- Date started
- Qualifications
- E-mail address

In part (c), a little under half of the candidates managed to score at least one mark on this part of the question, which was a little disappointing with data validation being an element of both parts of the coursework.

Question 7

A clear majority of candidates were able to answer parts (b), (c) and (d), with at least three quarters of candidates answering them correctly. Candidates performed best on part (c) with the vast majority gaining a mark.
Around half of the candidates were also able were able to identify OMR as the method of data capture in part (a) and MICR as the correct answer in part (e).

Question 8

As in previous years, candidates showed a very good understanding of most aspects of spreadsheets. In part (a) almost all of candidates could identify the shaded cell as A14.
In part (b) text, date and number were the most common cell formats identified. Most candidates were able to identify at least one cell format used in the spreadsheet.
Most candidates were able to identify a suitable graph in part (c), with the most common correct answers being pie and bar.
In part (d) most of the candidates were able to give an accurate formulae for the cell D19. As with the foundation paper, some candidates tried to explain what was happening in the cell rather than give a mathematical formula.
In part (e), it was pleasing to see quite a number of candidates had experience of goal seek in "what if" situations but even in this higher tier paper, very few were able to expand their explanation to score both marks on this question.

Question 9

Many centres now seem to be teaching their students the key elements of the Data Protection Act and full marks were not uncommon. The question was well answered and around three

quarters of candidates gained at least one mark. Again, a common misconception (or guess) was that data users could not give any information to anyone under any circumstances at all.

Question 10

Logo style questions are not often asked in the higher tier paper and as might be expected many candidates appear to have found both parts (a) and (b) reasonably easy to score marks. However, whilst the vast majority of candidates scored full marks in part (a), only the quarters of candidates scored full marks in part (b). As with the foundation paper, candidates came up with a number of different, correct variations that moved the robot along the given route.

Question 11

The majority of candidates could identify another field that had been coded in part (a) and say how many records were in the given database in part (b). In addition, around two thirds of candidates could identify why the Property ID field was needed.
Around three quarters of candidates in part (d) could give at least **one** suitable advantage of using a database compared to using manual methods.
It was very pleasing to see all sections of part (e) were very well answered, showing candidates increasing familiarity with database software.
In part (fi) almost three quarters of candidates could give a suitable reason why the pets allowed field may have been left blank but les than half of the candidates gained full marks by going on to explain how validation could reduce the chance of this happening.

Question 12

Traditionally, questions about testing have not usually been answered as well as questions on other parts of the syllabus but overall most parts of the question have been at least quite well answered.
Surprisingly in part (a), only half of the candidates could identify the design stage as the part of the life cycle where the test plan would be produced.
Although, part (b) was very well answered and majority of candidates scored both marks for this part of the question, part (c) was poorly answered by most candidates and very few gained full marks.
In part (d) about typical, extreme and erroneous data, candidates found it easiest to give an example of typical data with almost three quarters gaining a mark and most difficult to give an example of extreme data, with under half gaining a mark.

Question 13

As may have been expected, the term e-mail was well known to candidates and a majority could gain at least one mark for defining the term. Similarly part (b) was very well answered and three quarter of candidates gained both marks for giving advantages of e-mail.

However, in part (c) only just over half of the candidates could give a disadvantage of e-mail compared to post. The most common correct answer given by candidates was the inability to send physical objects such as parcels via e-mail.
Part (d) was not as well answered and less than half of candidates were able to give a suitable reason why some people may still prefer to use the telephone.

Question 14

Most parts of this question were well or quite well answered by candidates.
Part (a) was correctly answered by just less than three quarters of candidates and almost all candidates could give at least one task carried out by an operating system. Similarly part (c) was well answered and three quarters of candidates could identify one type of operating system from the list.
It was disappointing with the wide spread use of computers that less than half of candidates could name one other type of operating system.

Question 15

This year's essay style question was quite well answered by many candidates who had an understanding of the need for the information stored to be accurate. In part (a) many candidates were able to describe at least one possible consequence of inaccuracies, although some answers were too vague to score marks.

Answers to part (b) were even better than part (a) with the vast majority of candidates gaining at least one mark for describing ways in which the information stored may have become inaccurate. The most common correct answers were:-

- Typed in wrongly/inaccurately accidentally
- Back storage problems/failure
- Hackers changing data
- Virus attack

Similarly part (c) was also well answered with a good majority of candidates scoring at least one mark for describing ways of reducing the risk of inaccurate data being stored on a computer system. The most common correct answers were:-

- Data validation
- Data verification / Proof reading
- Keep backup copies
- Firewall
- Virus checker

Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the **Results Statistics** page of the AQA Website.