



**General Certificate of Secondary Education (Short Course)**

**June 2011**

**Information Communication Technology** **45204**

**(Specification 4520)**

**Unit 1: Systems and Applications in ICT**

***Report on the Examination***

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## ***Information and Communication Technology (Short Course)***

### ***Unit 1 - 45204***

The Short Course paper was marked on-line this year and this has now become a well-established process. As questions are marked on-line, it is easy to collect a range of statistics on each part of each question as well as those relating to the whole paper. These statistics allow AQA and examiners to see which questions were answered well and which questions candidates found difficult.

In addition, candidates at a small number of centres sat this examination online, using an electronic version of the paper.

#### **Max mark 60**

#### **General Comments**

Units from the new specification can be taken early and ‘banked’ for certification in a future series.

Overall, the standard of performance from the candidates in the written paper was good, this is indicated by the mean of the paper being a little over half marks 33. It is however, worth emphasising that in this specification, there are elements of theory that are difficult to teach through practical lessons and controlled assessment tasks alone. These are often best taught by separate theory lessons or as starters or plenaries in practical lessons.

Unlike previous AQA GCSE ICT specifications, this paper was untiered. The statistics do indicate that most of the paper appeared accessible to the majority of candidates (this year, nearly all candidates scored 19 marks or more). In addition, few candidates left questions not attempted, which is a pleasing start to the short course Unit 1 of this new specification. This question paper for this specification is in three sections and all questions in sections A and B are compulsory. The sections are described in the specification as follows;

Section A – 5 structured questions featuring a range of types of questions from very short to questions requiring 2 or 3 line answers.

**Total 30 marks**

Section B – 2 structured questions featuring short and extended answer questions.

**Total 18 marks**

Section C – 1 essay question from a choice of 2.

**Total 12 marks**

## **Section A**

### **Question 1**

In question 1(a)(i), 1(a)(ii) and 1(a)(iii), candidates were asked to identify the output device shown in a series of pictures. As expected, all parts of the question were very well answered and nearly all of the candidates were able to identify each of the output devices shown.

In question 1(b), just over two thirds of candidates were able to identify that CD-ROM was not an input device.

In question 1(c), over three quarters of candidates were able to identify two mobile devices from the list given

### **Question 2**

The majority of candidates found all parts of question 2 difficult and the ideas of data validation and data verification did not seem to be well understood by many candidates. The statistics would indicate that this question was the least well answered question in Section A. Part 2(a) of this multiple choice question dealt with data validation.

In part 2(a)(i) less than a fifth of candidates recognised, from the list, that 'Presence Check' would be the best method of data validation.

In part 2(a)(ii) a little under half of candidates recognised, from the list that 'Look-up list' would be the best method of data validation.

In part 2(a)(iii) just under a third of candidates recognised, from the list that 'Range Check' would be the best method of data validation.

In part 2(b) a very small number of candidates could name one method of data verification, and an even smaller number could name two methods. Many candidates resorted to naming methods of data validation given in part 2(a). The most commonly seen correct answers were the two indicative examples in the subject specification i.e. visual checks and double entry.

Although overall the candidates responses were disappointing, it was clear some centres had taught this section of the syllabus well and there were some good answers.

### **Question 3**

Part 3(a) of this multiple choice question dealt with some legal and moral issues to be taken into consideration when using ICT.

In part 3(a)(i) the majority of candidates recognised, from the list, this concern as 'hacking'.

In part 3(a)(ii) over two thirds of candidates recognised, from the list, this concern as 'plagiarism'.

In part 3(a)(iii) just under two thirds of candidates recognised, from the list, this concern as 'phishing'.

Parts 3(b) and 3(c) asked candidates about health related issues related to spending a long time each day working with computers.

Although in part 3(b) a pleasing majority of candidates could give one step to reduce the risk of back problems, less than half gained both marks for giving two different steps. Often candidates for their second answer would simply rephrase their first answer, which gained no extra credit.

Part 3(c) was also well answered by almost all of the candidates, with nearly all candidates gaining the one mark for giving one other health problem.

#### **Question 4**

Part 4(a) of this multiple choice question dealt with features of a graphics package and Part 4(b) of this question dealt with features of audio software. All parts were extremely well answered with the vast majority of candidates gaining full marks on each part of the question.

Part 4(c) of this question dealt with describing briefly the purpose of two e-mail related terms.

In part 4(c)(i) the majority of candidates could describe the purpose of Mailbox/Inbox.

In part 4(c)(ii) less than a third of candidates could describe the purpose of Cc. Candidates often just wrote 'carbon copy' without describing the purpose.

#### **Question 5**

5(a) The most common correct answers for advantages of using video conferencing rather than email were, the idea of the students working in real time and it was more personal taking face to face. Over three quarters of candidates scored at least one mark for this part of the question.

5(b)(i) The vast majority of students had clearly worked collaboratively and were able to gain one mark for describing the process of 'two or more parties working together'. And a third of candidates were able to expand on their answers to include ideas such as 'working to common targets/goals' or it being a 'recursive process'.

Similarly in 5(b)(ii), many candidates could give at least one advantage of collaborative working and a third of candidates could give two advantages.

## Section B

### Question 6

In question 6 candidates were asked a range of questions about a spreadsheet used to plan a budget for a school production. 6(a) was well answered and the majority of the candidates realised the best way to display all of the title 'Grease' was to make row 2 higher.

In part 6(b) two thirds of candidates could identify the formula used in cell D24.

In part 6(c) although just under two thirds of candidates gained at least one mark for this part of the question, many candidates simply 'stated' a reason without going on to explain why the finance office might not find the graph very useful.

6(d) was the first of the extended answer questions which were all marked using a 'levels of response' rather than a 'points' mark scheme. The concept of modelling was not very well understood by most candidates and it would appear many candidates had not yet tackled the modelling elements of Unit 2. Although over half of the candidates gained at least one mark, very few were able to give a suitable explanation of the process and gain marks at the higher mark ranges (4 or 5 marks).

### Question 7

In question 7 candidates were asked a range of questions about a family planning a holiday. The results of search for holidays leaving Manchester on the 2<sup>nd</sup> or 3<sup>rd</sup> July were given in a database table.

In part 7(a)(i) over half of the candidates could say what was meant by a field. However, many answers given were sadly too vague. In questions like these, it is often helpful for candidates to give examples. Just over three quarters of candidates could give the correct number of fields for part 7(a)(ii). Incorrect answers were 13 (the number of records) and occasionally 104 (13 records \* 8 fields).

In parts 7(a)(iii) and 7(a)(iv) a little under three quarters of candidates could identify the 'Booking code' as the key field and just over a third could state why a key field is needed.

Overall question 7(c) was quite well answered with a little under a half of candidates scoring 2 or 3 marks. A wide range of suitable issues relating to 'the importance of checking sources' were discussed by candidates, including possible consequences for not checking sources. Candidates who scored only one mark on this section tended to give one issue and usually did not consider any consequences.

## Section C

Both essay questions were tackled reasonably well by candidates and a reasonable percentage of all the candidates were able to score half marks (6 marks) or more. A very small number of all the candidates made no attempt to answer either essay question.

Overall candidates appear to have performed better on question 9 than on question 8. As with all of the extended answer questions, the essays were all marked using a 'levels of response' rather than a 'points' mark scheme.

### Question 8

Less than half of candidates attempted this essay question and as stated earlier, overall it was reasonably well answered. A wide range of sensible issues were raised by candidates including;

- Financial/Economic issues
- Educational issues
- Political issues
- Isolation issues
- Religious issues
- Communication issues
- Health issues

The levels of response mark scheme was applied in a similar way to question 15, details of which are given below.

### Question 9

This question was the more popular of the two essay questions and just fewer than 58% of candidates attempted this question.

The overall detail of how these essay questions were marked is given in the mark scheme published by AQA. However, extracts from the mark scheme with some amplification are given below.

From the mark scheme, candidates whose responses were at the **lower mark range (1-3 marks)**, displayed the following;

#### Subject Criterion Context

There are simple/very simple statements about at least one valid **statement** on companies increased use of ICT and network technology. These were often brief bullet points.

Examples were supported by very limited descriptions or no descriptions at all. Possible effects on companies were NOT really considered by these candidates.

### Quality of Written Communication

These candidates has used a form and style of writing which has **many** deficiencies. Ideas were not **often** clearly expressed. Sentences and paragraphs were **often** not well-connected or **at times** bullet points were used.

Specialist vocabulary tended to be used **inappropriately** or **not at all**. **Much** of the text is **legible** and at times only **some** of the meaning is **clear**. There are **many** errors of spelling, punctuation and grammar but it should still be possible to understand **much** of the response.

Whilst from the mark scheme, candidates whose responses were at the **higher mark range (7-9 marks)**, displayed the following;

### Subject Criterion Context

There is evidence of a more **developed understanding** shown through the use of **suitable** examples that **describe** more than two valid **effects** on companies increased use of ICT and network technology. Examples are supported by suitable descriptions. Possible effects on companies are clearly described.

### Quality of Written Communication

The candidate has **mostly** used a form and style of writing **appropriate** to purpose and has expressed some complex ideas **reasonably clearly** and **fluently**. The candidate has usually used **well linked** sentences and paragraphs.

Specialist vocabulary has been used on a number of occasions but **not always appropriately**. Text is **legible** and **most** of the meaning is **clear**. There are **occasional** errors of spelling, punctuation and grammar.

Again a wide range of sensible issues were raised by candidates including;

- **Increased flexibility**, flexible hours, home working etc.
- **Size of workforce**, jobs loss because of introduction of ICT (unemployment), new jobs being created, mainly in ICT, etc.
- **Location of workplace**, centralised, out of town, home working, mobile computing, etc.
- **Change in jobs**, as with size of workforce but also training and retraining issues. Plus job satisfaction, ease of tasks etc.
- **Video conferencing** issues
- **Web site** issues
- **Wireless/Wi-/Fi/network access** issues



**Mark Ranges and Award of Grades:**

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

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