AQA

ASSESSMENT and
QUALIFICATIONS
ALLIANCE

General Certificate of Education

Applied Information and Communication Technology 8751, 8753, 8756 and 8759

Report on the Examination

2006 examination – January series

- 8751   Advanced Subsidiary
- 8753   Advanced Subsidiary (Double Award)
- 8756   Advanced
- 8759   Advanced (Double Award)

Contents

GCE Applied Information and Communication Technology

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Unit 1: ICT and Society (IT01)

This was the first series for the examination of this unit. The format of the examination is an AQA-set assignment, for which candidates are allowed time for research and initial development work (the investigation time), then a period of controlled conditions during which candidates are expected to produce the final product and an evaluation.

General comments

It was clear that many candidates gained more than just ICT knowledge and experience when carrying out the tasks in this examination. Many candidates had undertaken substantial research into the target audience and had benefited from their contact with people over the age of 60.

It was also clear from much of the work presented that candidates had enjoyed carrying out the tasks. The result was the production of many varied and interesting newsletters that were imaginatively designed and had interesting content written specifically for the target audience. The range of content included in many newsletters further indicated that candidates had carried out substantial research into areas of ICT and legislation that would be of interest and relevance to their target audience.

Many candidates had included design work that was not clear or detailed and had not explained how their designs were appropriate for the target audience.

Most students submitted their work in the order that the tasks were set out in the Candidate Booklet. This made it easy for the examiners to find the evidence. Some candidates had presented work in plastic wallets, or other inappropriate bindings. Centres are reminded that the candidates work should be securely bound, preferably with a treasury tag, in a way that makes it easy for the examiner to access the work.

Many candidates had included all their research material, in some cases amounting to over a hundred pages. Research material, in itself, can not be awarded any marks and centres should ensure that their candidates do not include this in the work sent to examiners. Where research has been carried out, candidates may summarise this and refer to it in their submitted work.

Some candidates had not numbered the pages of their work, nor had they labelled work clearly. This was particularly apparent in the design work, where it was often not clear which were draft designs and which was the final design. Centres should remind candidates to number the pages of their work and label sections appropriately.

The task

The task given for this examination series was to design and produce a newsletter for an organisation to send to people aged 60+. The purpose was to inform them of the effects that ICT is having on society.

Candidates were required to include details of two pieces of ICT-related legislation which could affect the target audience and to give four examples of the use of ICT for different purposes, one of which related to a group of people with a sensory impairment.

Items (a) to (o) in the Candidate Booklet set out details of what candidates should hand in. The process that candidates were expected to go through was as follows:

Candidates should have started by planning how to break down the overall task into chunks and planning their time in order to ensure that they completed everything within the overall time allowed.

Candidates should then carry out research into their target audience, in order to ascertain what their needs are. This should influence the design and layout of the newsletter, as well as informing the likely content. Research should be carried out in order to gather information and relevant pictures that will form the content of the newsletter. The results will be gathered into text and image files ready for the controlled conditions. Candidates should not forget that the content must be accurate and relevant to the target audience.

As the research is being conducted, the candidates should form a bibliography, in the format suggested in the Candidate Booklet.

Once the research has been completed, the candidates should create criteria that will allow them to evaluate the final version of their newsletter. The criteria should be informed by their research and by the requirements of the task.

Several alternative designs should then be produced by hand. These rough drafts should include sufficient detail for the target audience to be able to comment on their suitability. The candidates should record how they carried out the testing as well as the results.

A final design should be created, on which the implementation of the newsletter will be based. The candidate should annotate this design to show its features, including accurate dimensions, so that a third party could implement the newsletter from this design. The annotations should explain why and how it is appropriate for the target audience. The annotations should also show where all content is going to be inserted, with reference to the information stored in the research files.

During the controlled conditions, candidates should create the template for the implementation of the newsletter. The template should be printed out and annotated to show the features of the software that are used in creating it, such as text boxes, drawing tools and so on.

Candidates should then show how the newsletter is constructed, through a series of screen shots that illustrate how and where content has been inserted and how the newsletter was refined by rejecting or enhancing certain parts. These screen shots will also be useful in the evaluation of the candidate's own performance.

Once the newsletter has been constructed, the candidate should evaluate it using the criteria that were originally set.

The candidate should also evaluate their own performance, using their original time plan, their amended time plan and screen shots of the newsletter construction.

Items (a) to (h) should be produced during the investigation time; items (i) to (o) during controlled conditions.

Items (a) and (n)
Most candidates gained the first mark and a significant number gained two. This was best done using a time plan, or task list, that showed dates when the candidate planned to carry out a task, which was then amended to show actual dates when the task was carried out, with a column for monitoring comments

explaining the reasons for changes that were made. The third mark was awarded to few candidates, as few had recorded monitoring comments, or had just given a description of the work done.

Item (b)

Most candidates had done this well. Many had produced questionnaires for their target audience and gained much useful information about their needs and experiences. This was used to inform their newsletter designs and content. Many others, however, did little or nothing with them. Higher scoring candidates summarised their results and explained how they would use them in their newsletters. Many candidates included all of their completed questionnaires, which are not required. If candidates wish to provide evidence of their research then a single example of their questionnaire and the summary of results is sufficient.

Many candidates had also interviewed people from the target audience and it was clear that they had gained much knowledge from these interviews, as well as less tangible social benefits.

Other candidates had carried out research via the Internet, or had looked at magazines and articles aimed at their target audience. These also provided valuable information that could be used to inform the newsletter layout and content.

Item (c)

The evaluation criteria should enable the candidates to assess the newsletter's suitability for purpose and audience. Criteria should be both qualitative and quantitative. To gain full marks candidates should also explain how they derived the criteria.

Many candidates had included criteria which did not meet the requirements because they were derived by rewording either the task, as written in the Candidate Booklet, or by rewording the items from the 'What you should hand in' section of the Candidate Booklet.

Better candidates had used their research for item (b) to create criteria then enabled them to assess the suitability of the content, design and layout in terms of the newsletter's purpose and audience in their evaluations.

Item (d)

The Candidate Booklet gave examples of how various sources should be referenced in a bibliography. In order to gain full marks, candidates needed to show that they had used a wide range of sources.

Some very good bibliographies were seen, with a wide range of sources quoted, indicating that considerable effort had gone into the research. However, many candidates had not followed the format of the bibliography shown in the Candidate Booklet, and did not gain the marks which they could have done.

Many candidates had used large numbers of Internet sources but had included no printed or other types of sources which, again, prevented them gaining maximum marks.

A significant number of candidates did not list their sources at all, or had made reference to search engines on the Internet. These candidates gained no marks.

Item (e)

Candidates were expected to include no more than three different draft designs that could be tested for suitability with the target audience. These draft designs should be sufficiently detailed to enable the target audience to make a choice about layout and content. This may be achieved through annotation of the drawn designs. The annotations should explain why the different designs are suitable for the target audience.

Most candidates had included at least one draft design, though generally the designs were badly executed. Many designs showed little apart from the general layout of text areas and pictures, with some indication of colour or font size.

It is sufficient to draw the draft designs neatly by hand, though some candidates had used drawing tools to show the layout of pages and annotated them by hand. Where software is used to draw the designs, the candidate should state what software is used.

Draft designs should be clearly labelled as such. In some cases it was not possible to tell which the draft designs were and what was the final design.

Some candidates had included no draft designs at all.

Item (f)
Candidates were expected to test their draft designs for suitability for the target audience. The best way to do this would have been by showing them to a sample of their target audience and getting feedback from them. Most candidates provided strong evidence of having done this well, with the better candidates using this information to prepare their final design.

A large number of candidates asked their target audience to choose from two or three designs and then explained and summarised their findings.

Many candidates included large numbers of questionnaires that had been used to test their designs. Again, it is not necessary to include these and candidates should be discouraged from doing so.

A significant number tested their newsletters and not their draft designs. Centres should be aware that candidates are not allowed to take the final implementation out of the controlled conditions.

Item (g)
The final design should be sufficiently detailed that a competent third party could implement it with no additional detail. It should contain details of measurements, layout and content as well as colours and sizes and types of fonts. The annotations should also explain the features of the design and why they are suitable of the audience and purpose, for example using a large font size to make text clear or using a table to make information easily accessible.

An annotated hand-drawn design is perfectly adequate, though the design may also be produced using a software application. Where a software application is used, the application should be clearly named. The candidate should not use the same application that they will be using to carry out the implementation.

Some candidates had printed out their template and annotated this as their final design. The final design should not be confused with the template that the candidate will use for the final implementation.

Some candidates had produced very detailed design work, but few had annotated the design in sufficient detail to gain the full marks. Most candidates had annotated details of fonts and font sizes, with some measurements but very few produced a design that could have been implemented by a third party.

Item (h)
Once research has been undertaken, candidates should have a number of files containing the text and pictures that they intend to use in their newsletter. The text files should be in plain text (ASCII text) with no formatting. Microsoft Word document files (.doc) and rich text files (.rtf) are not acceptable formats. Candidates should take a screen shot that clearly shows all the files that will be used during controlled conditions.

Many candidates had provided screen shots of their files. A significant number had included formatted text files, which are not acceptable.

Some candidates had misinterpreted the requirement and had written a list of their files. These candidates had their work credited.

Item (i)
From the final design, candidates should use appropriate software to produce the template for their newsletter. This should be printed out (screen shots should be used) and annotated to show the features such as page sizes, margins, tables and so on. Further annotation should demonstrate that features of the software have been used, for example to change fonts, create tables, produce numbered lists etc.

To gain the maximum marks candidates should also explain why they have used these features.

A significant number of candidates did not provide evidence of creating a template. Many other candidates annotated screen shots of standard templates provided by their software application, rather than creating a template. These candidates gained no or very few marks on this item.

Most candidates who did provide evidence of screen shots did not explain many of the features, though some others did this very well.

Item (j)
Candidates should produce screen shots of their work, showing how the newsletter was composed and developed, including items that were enhanced or rejected. The screen shots should be annotated to cross-reference the content to the files of researched material.

Most candidates had produced screen shots of their newsletter as it was being developed. However, a significant number did not annotate the screen shots at all.

A few candidates produced good evidence of the development of their newsletters and gained maximum marks, but many of these did not show how the content was related to the files of research material. Those who did gained high marks, making it clear which files were used in each section of the newsletter, as well as showing the file names of their illustrations.

Item (k)
Many candidates gained high marks on this section, for which there are twenty four marks available. Marks are awarded for the content of the newsletter.

Six examples were asked for, two relating to legislation that affected the target audience, three that showed how ICT is used for different purposes and one that is directly related to people who have a sensory impairment.

For each of the examples, one mark was given if the example was relevant, one mark if the detail given was factually correct, one mark if the candidate had shown the advantages and disadvantages of the example to the target audience and a fourth mark if the example was cross referenced to the research done.

The standard of writing and creativity seen in the newsletters was particularly pleasing. Candidates had generally tried hard to appeal to their target audience and some informative and entertaining copies were seen. Both content and layout were generally very creative, with relevant text and positive images of the target audience.

Many candidates had explained the Data Protection Act, The Computer Misuse Act or the Copyright and Patents Act for their examples of legislation. A few had explained how the Health and Safety at Work Act might be relevant to the target audience. It was unfortunate that some candidates had used pieces of legislation that were only applicable in the United States of America, or consultative proposals from the European Commission. None of these was awarded marks.

A wide range of examples of the use of ICT was seen, amongst the most popular being home shopping, email, internet use and on-line courses. Many of the examples were well explained and factually correct. Many candidates, however, omitted to explain the benefits or drawbacks to the target audience. Very few gained the fourth mark for each example, by referring to their research source, or by indicating that further information could be obtained from particular sources.

Most candidates included an example of the use of ICT that could be directly related to a group of people with sensory impairment – the most common examples being adaptations that were useful for sight impaired or hearing impaired users.

One common error was to describe standard hearing aids as an example of ICT, though it is in fact and example of technology. No marks could be awarded for this. Some candidates had made the distinction between standard and digital hearing aids, with the digital hearing aids being the example of a use of ICT. These candidates could be given credit for this use of ICT.

Some candidates included many more examples than were required. In these cases, credit was given for the examples that would gain the most marks.

A significant number of candidates used examples that were not acceptable. For example, some described closed circuit television. In itself, this is an example of technology, rather than ICT, so did not gain any marks. Some candidates went on to describe how digital images from CCTV cameras could be used to identify faces, or to avoid accidents. These were acceptable examples, so credit was given.

A significant number also explained the use of virus checkers, which is not a use of ICT. Others claimed that the possibility of virus infection was a drawback of using the Internet, whereas it is actually a consequence. Neither of these examples, or similar ones, gained marks.

In a few cases the candidate had not submitted their final newsletter and marks could only be awarded from what was visible in screen shots. These candidates seriously disadvantaged themselves.

Item (l)
The evaluation of the newsletter was influenced by the criteria that had been set prior to controlled conditions. It was evident that those candidates who had clear evaluation criteria produced a better evaluation of their newsletter than those who had not.

A substantial number of candidates gained full marks by explaining how their newsletter met the original criteria and how the newsletter was suitable for purpose and the target audience. This was done by reference to their original criteria and by discussion of the content and design.

Many candidates gained two marks for showing why the newsletter was suitable for purpose and audience.

Item (m)
In the evaluation of their own performance, candidates should make reference to their time plan and any significant changes that they had to make to it. They should also make reference to their own use of ICT in creating the newsletter and how they overcame any problems that occurred.

A significant number of candidates either did not attempt to evaluate their own performance, or carried out only a cursory evaluation.

Many candidates gained one mark for comments about spending too much time on a task, or using the Internet to find research materials. A significant number used screen shots, or referred to those created for item (j) to explain how problems were overcome.

Few candidates provided detailed explanations, cross referenced to their time plan and the development of the newsletter, that would have gained the third mark.

Item (n)
Candidates were expected to amend their original time plan, by hand, to show the actual time that they spent carrying out their planned tasks. The amended version should have been annotated to show any changes made and explaining the reasons for the changes. This takes into account the fact that projects rarely go according to plan and that changes need to be made to ensure that final deadlines are met.

Most candidates had included an amended time plan – so gained one mark, but few had explained why the changes had been made – which would have gained an additional mark.

Item (o)
Candidates were expected to provide a second list of files – those actually used during controlled conditions. If this list of files was different from those in item (h), either because research material had not been used, or because research material had been added to the original list, then these changes should be annotated to show the changes and why they had been made.

Most candidates listed the files actually used, but few annotated them to show the changes made.

It was not clear, in a significant number of portfolios which was the list provided for item (h) and which was provided for item (o), particularly where the lists were identical. Both lists should be clearly labelled. If the candidate has made no changes to the list of files, then this should be stated.

Mark Range and Award of Grades

GCE Applied Information and Communication Technology

Unit	Maximum Mark (Raw)	Maximum Mark (Scaled)	Mean Mark (Scaled)	Standard Deviation (Scaled)
Unit 1: ICT and Society (IT01)	70	70	30.8	10.1

In Applied GCE examinations, scaled marks are the same as raw marks.

Unit 1: ICT and Society (IT01) (2204 candidates)

Grade	Max. mark	A	B	C	D	E
Scaled Boundary Mark	70	51	45	39	33	27
Uniform Boundary Mark	100	80	70	60	50	40

Definitions

Boundary Mark: the minimum mark required by a candidate to qualify for a given grade.

Mean Mark: is the sum of all candidates' marks divided by the number of candidates. In order to compare mean marks for different components, the mean mark (scaled) should be expressed as a percentage of the maximum mark (scaled).

Standard Deviation: a measure of the spread of candidates' marks. In most components, approximately two-thirds of all candidates lie in a range of plus or minus one standard deviation from the mean, and approximately 95% of all candidates lie in a range of plus or minus two standard deviations from the mean. In order to compare the standard deviations for different components, the standard deviation (scaled) should be expressed as a percentage of the maximum mark (scaled).

Uniform Mark: a score on a standard scale which indicates a candidate's performance. The lowest uniform mark for grade A is always 80% of the maximum uniform mark for the unit, similarly grade B is 70%, grade C is 60%, grade D is 50% and grade E is 40%. A candidate's total scaled mark for each unit is converted to a uniform mark and the uniform marks for the units which count towards the AS or A-level qualification are added in order to determine the candidate's overall grade.