

# Examiners' Report January 2007

GCE

GCE Applied ICT (8751/8752/9751/9752)

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January 2007

Publications Code UA018624

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## Contents

Unit 1 - The Information Age	1
Unit 2 - The digital Economy	4
Unit 3 - The Knowledge Worker	7
Unit 4 - System Design and Installation	9
Unit 5 - Web Development	13
Unit 6 - Technical Support	16
Unit 7 - Using Databases	19
Unit 8 - Managing ICT Projects	21
Unit 9 - Communicatiosns and Networks	25
Unit 10 - Using Multimedia Software	27
Unit 11 - Using Spreadsheet Software	29
Unit 12 - Customising Applications	32
Unit 13 - Web Management	33
Unit 14 - Programming	35
Statistics	38

**6951: The Information Age**  
**January 2007**

**General comments**

Centres have used the experiences and comments from the previous series. The standard of the work submitted has improved since the June series. The advice contained in previous reports has been followed by a number of centres. Most of the work seen was appropriate and gave the candidates good opportunities to meet the requirements of the specification.

In some cases, it was difficult to find the entry to the e-portfolio. To show standard ways of working, candidates should use "index.html" as an entry point.

There were still examples of work submitted in inappropriate file formats, such as PowerPoint presentations which had not been converted to html format, or long, document-style PDF files with few links for e-book presentations.

Candidates should be encouraged to check links thoroughly as there were a few cases where evidence had to be found by searching through folders. Proofreading of work was improved so candidates had taken on board comments to check the contents of their e-portfolios carefully.

Some centres still made very little comments on where the marks were being awarded, this made moderation slightly difficult. A few assessors had recognised poor work from candidates and had marked it leniently.

**Stand (a) On-line services:**

There was generally a broad coverage of online services by most candidates. Only a few candidates did not include the required five different types of online services described in the specification and therefore could not be awarded full marks. At times they included two types of the same online service presented but presented these as different services which limited the marks they could be awarded. A common mistake was to include banking and shopping which are under the same bullet point in the specification. Some candidates still simply evaluated websites for this strand, rather than the services themselves. Candidates tended to use extracts and screenshots from websites and very rarely used journal articles, sound clips or quotes from discussion groups.

The importance of evaluation of the scope and limitations of the internet should be emphasised to candidates.

**Stand (b) Life in the information age:**

Candidates still do not use or provide evidence of using a variety of sources. Most used only the internet for research. Pupils should be encouraged to use a variety of information sources i.e. Magazines, newspapers, interviews etc. to achieve the higher mark bands. This is necessary to gain marks above MB1. The main source of evidence for this is the candidate's bibliography. Candidates should be taught how to produce a bibliography correctly.

Some candidates still describe websites or services in this section, the main focus must be the effect of people's life. The overall impact was often not discussed by many candidates. Candidates could be encouraged to summarise and comment on the

overall impact of ICT on life in the Information Age. This is essential to access the higher mark ranges.

#### **Stand (c)**

##### **Digital Divide:**

Some candidates failed to identify the measures taken to bridge the gap and therefore could not be awarded higher marks. The impact and extent of the digital divide was not well done by many candidates and the descriptions they gave did not illustrate both local and global extent of the divide. Candidates often listed of gave a brief comment on factors such as wealth and environment but did not evaluate the impact or the extent. Government measures to bridge the gap were rarely mentioned.

To Gain marks in the higher ranges the candidates must cover the divide at all levels, Local, national and international.

#### **Stand (d) The e-book:**

There were some good examples of e-books produced using Dreamweaver, or FrontPage.

Pupils who achieved higher mark bands showed consistency when using background, text and layout. They managed to comfortably accommodate text on the screen and offered the user a means of navigation from page to page, sequential and non sequential.

Some of the candidates addressed audience and purpose by using an introduction; however, some of the candidates did not address the awareness of audience and purpose at all with a large amount of scrolling. A few candidates did not produce an e-book but linked PDF files to their work, this limited access to marks in this strand.

Links and navigation still failed to operate due to candidates using absolute link addressing which was subsequently broken when the CD was written.

Candidates also used external links which may not be available in the future

Standard ways of working were not always observed in that file names were not meaningful and external assessors had difficulty in finding the start of the ebook..

#### **Stand (e) Components and structure:**

Most candidates used suitable ready made components which related to the topic discussed. However, in some cases the use of original components used was rather weak. Some candidates opted to use an interview, which is a good idea, although candidates need to make sure that questions asked are relevant.

When links did not work this was often overlooked by the assessors when awarding marks for strand (e) as clearly thorough testing had not taken place.

Evidence of testing was often demonstrated by the fact that a fully function e-book had been produced, some candidates included test plans and feedback from others as further evidence.

## **Stand (f) EVALUATION:**

The higher achieving candidates attempted this aspect well and evaluated both their own performance and the performance of the eBook. They also incorporated feedback and made recommendations for improvements.

In most cases the evaluation had been placed correctly outside of the eBook. Although it was not always easy for the assessor to locate.

Candidates still confused the eportfolio with the e-book at this stage. The evaluation is not part of the e-book and should be a separate document within the eportfolio

## **Standard Ways of Working**

In most cases the only evidence the external assessors had for this aspect was the bibliography and the file structures and names used by the candidates. In some cases it was difficult to locate the e-book or e-portfolios of candidates as these were often not well named.

Bibliographies are the main source of evidence to support the range of sources of information used by the candidate; too many candidates still give search engines as the source of the information when clearly the source was a website found using them. Many candidates only quoted web sites, the specification requires a wide range of different sources to be used for strands (b) and (c).

## **General Administration**

Most samples were correctly submitted with folders clearly labelled with centre numbers, candidate number and first 2 letters of surname and first of Christian name. It would help if the record sheet naming convention is the same

The centre assessor should use the record as an opportunity to help the moderator find the evidence required to agree the marks given. The comments by centres often contained only 1 line comments, in other cases no comments at all were provided.

## 6952: The Digital Economy January 2007

### General Comments

There were a good number of entries for this unit for the January window and the full range of marks were seen from 57 to 1. There were some excellent ePortfolios submitted with candidates clearly taking a real pride in the presentation of their evidence and demonstrating good understanding of the unit and accurate assessment to national standards. On the other hand, it was disappointing to see a number of submissions which did not demonstrate standards which reflected AS candidates.

Most of the ePortfolios submitted were in the correct format and the evidence easy to find. However, there is still a significant percentage of centres submitting evidence in incorrect formats, ie Word files and also with many links not working. Eportfolios should be in a format that can be read in a browser and the files should link together. Centres should refer to the following document "submitting ePortfolio samples for moderation" which is on the Applied GCE ICT section of the Edexcel website.

<http://www.edexcel.org.uk/quals/gce/ict/as/8751/>

Many centres are giving clear feedback on the candidate esheet which shows how the marks were awarded and helps the moderation process. However, some centres are not giving any feedback at all. There is evidence that the requirements of the higher mark bands were not fully appreciated and this is explained in more detail below. Assessors are advised to use the e-sheet to indicate whether deadlines are met and explain if the candidate worked independently.

There are still many instances of evidence containing many uncorrected errors. Candidates are recommended to proof read their work thoroughly and should refer to the quality assurance section of 2.10 of the unit specification.

There were fewer instances of plagiarism in this moderation window but there was evidence of candidates downloading content from websites or copying from textbooks for strand C without evidencing the source. Although fewer diagrams were directly lifted from textbooks, there were still some instances of this.

### Comments on strand a - The Transactional Website

It was good to see that most candidates had chosen different transactional websites to evaluate. There are still instances of candidates evaluating ebay which is fundamentally an auction site enabling third parties to buy and sell. Some candidates are choosing ticketing sites which makes their understanding of strand b difficult. Candidates are advised to choose sites where items are ordered from stock and delivered to a specified address. Candidates who chose smaller sites often addressed more aspects in their evaluations.

The majority of candidates evaluated one site only which is the requirement for this strand. Most included relevant screen shots and explained navigation and the shopping basket. Few candidates explicitly explained methods used to capture customer information. These should include covert and overt methods in order to address all aspects of mark band 1. Candidates wishing to raise achievement in this strand should look at 2.3 and 2.5 to find a wider range of features to evaluate to enable them to address the requirements of mark bands 2 and 3. Some candidates describe the products at some length rather than evaluating the transactional website itself. Many candidates did not cover the design of the site. Few

candidates explicitly commented on the “customer experience” which is required in order to access full marks.

#### **Comments on strand b - Back-Office Processes**

There was an improvement in evidence produced for this strand. Candidates produced a range of different types of diagrams which is acceptable. Most candidates produced more than one diagram which is a requirement for mark band 1. It was good to see more candidates accessing marks in mark band 2 and 3. There were less instances of diagrams copied from textbooks. However, there are still instances where diagrams from the same centre are virtually identical. Candidates working in the higher mark bands are required to demonstrate an independent approach to their learning. Candidates should be encouraged to annotate and explain their diagrams to demonstrate understanding. However, it should be pointed out, that explanations on their own without diagrams do not address this assessment strand and, therefore, cannot access the marks available.

Many candidates demonstrated a good understanding of the front office process which can be ascertained from the transactional websites evaluated. Back office processes need to be taught and candidates should produce their own diagrams to explain these. Many candidates do not appear to have a comprehensive understanding of all back office processes. The back office involves many different areas within an organisation and may also involve third parties. It was good to see some candidates covering these areas and thereby demonstrating understanding of the complete picture required for mark band 3.

#### **Comments on strand c - Threats to Data**

Many candidates are still writing about security in general and, sometimes, relying too heavily on reproducing textbook content rather than relating their research to the requirements of the strand. The strand clearly states “potential threats to customer data COLLECTED BY ORGANISATIONS via their websites ...” Candidates should identify several threats if wishing to access the higher mark bands and clearly describe measures taken to protect this data which needs to include relevant legislation if wishing to access all the marks available for mark band 1. Many candidates are producing a lot of evidence but neglecting to include the evaluative comments required for the higher mark bands. However, it was good to see that a significant number of candidates related this strand to the transactional websites they had evaluated for strand a which is good practice.

#### **Comments on strand d - Database**

This is a high scoring strand with 20 marks available. For this window there were more candidates moving into mark band 2. However, there is still a significant number of centres who are assessing this strand leniently with candidates producing evidence that does not match the requirements. The assessment guidance on pages 43-44 give some further clarification.

Candidates are not required to find their own data but should be given a dataset large enough for them to extract some trends. There are several datasets on the microsite for this unit which can be used or centres may have access to other suitable datasets.

Although the candidates do not have to evidence every step of every process they undertake, they should include relevant screen prints to illustrate the various aspects of the mark band they are addressing. A structure should be produced for the dataset which needs to address field types/formats and incorporate validation.

There should be some evidence of testing the structure created. Inputting test data to initiate error messages is one way of doing this. The structure should be tested prior to the importation of the data. Many candidates included input masks but did not appear to have used validation rules at all.

The dataset needs to be divided into 2 tables with a one-to-many link and there needs to be evidence of this which can be provided by a screen shot of the tables with enforced relational integrity. There also needs to be some evidence that the data has been correctly imported. Candidates are not required to produce a database in third normal form.

Candidates need to manipulate the database and show evidence that the manipulation uses the relational aspects, ie both tables. Many candidates produced evidence which only used one table and this meant that not all aspects of mark band had been addressed.

Candidates should be encouraged to work out for themselves what queries they will use by examining the data used. Such queries should enable them to produce trends. It was good to see that most candidates had used graphical format to portray their trends clearly and most had made an attempt to analyse and explain the trends. To achieve full marks the candidates need to make sensible recommendations based on the trends identified. A major part of this strand is the ability to use a database as a tool to help in the decision making process.

There was limited understanding of what a trend is and it should be noted that candidates are required to identify some significant trends for mark band 2 and interpret these and make recommendations for mark band 3. This means it is important that the dataset is sufficiently large and complex enough to enable trends to be found. Candidates should examine how large amounts of data are used within organisations to help in the decision making process. Observing results over a period of time can identify a trend and then this can be used to help an organisation become more effective.

#### **Comments on strand e - Evaluation**

This strand is still not addressed effectively. Many candidates are addressing the requirements listed for 6951 rather than looking at what is needed for this unit. There are 6 marks available but most candidates are in mark band 1. There are two main areas to address and few candidates are evaluating the **performance of the database created**. The assessment guidance gives some further clarification on this.

Candidates are also required to evaluate their own performance whilst undertaking the unit. To move into the higher marks bands, candidate need to have obtained some feedback from others and incorporate this into their evaluation. There were many instances of evidence of feedback but no reference to it in the evaluation.

**6953: The Knowledge Worker**  
**January 2007**

**General**

On the whole centres seem to have prepared their candidates well for this examination and there were fewer examples of candidates being unaware of the requirements of the examination in general. Although it was clear that more candidates understood the time management requirements there were still a number of cases where it was clear the candidate had run out of time. The time management problem was mostly a problem for the low to middle attaining candidates. I will repeat the advice I gave in the report for the June series.

- a) Only the report activity is marked for quality of written communication; all other activities can be answered in note form.
- b) The suggested timings are given to help the candidate and should be adhered to, especially the timing for the 'using the model' activity. If the candidate has time left at the end of the activity they may revisit the earlier questions but they should never return to the 'using the model' activities.

Overall marks varied between very low and very high indicating a well differentiated examination.

**Activity 1**

The majority of candidates scored reasonably well in this activity especially identifying the main points of the scenario and also identifying the decisions they had to make. Many candidates struggled identifying the information available. In general the higher scoring candidates took a bullet point approach to this question. Many of the lower scoring candidates simply repeated parts of the scenario in the hope of picking up marks. Although it is possible to pick up marks in this way it is a time consuming activity and this will have an impact on the candidate's ability to complete the examination.

The examiners are looking for issues which directly affect the problem the candidate has to solve. As an example the number of staff employed is a factor which will become an input into the model and therefore a candidate would get a mark for mentioning this. The fact that the venture is to be called "Wheels on Fire" although relevant to the success of the business has no effect on the problems the candidate has to solve so mentioning this would not receive a mark.

**Activity 2**

This activity was asked in a slightly different way to previous examinations as the candidates did not have to make a choice between data sources but had to identify the data sources and evaluate them. This activity is still not done very well by candidates. It became clear that many candidates still do not have a clear understanding of what a data source is. Many identified the letters as the source rather than the medium on which the information was conveyed.

The examiners are looking for the candidates to identify where the data comes from and hence make some comment about its likely accuracy. Aspects such as the reputation or reliability of the source or how up to date the data is will generally receive marks.

### Activity 3

Once again this activity was the most accessible to candidates. Most candidates scored well. When marks were lost it was usually due to the candidates not reading the question and consequently not providing the correct evidence. On the face of it candidates seemed more comfortable with a financial model but many concentrated on the business studies aspect rather than taking the model and the scenario at face value thereby complicating the issue. Higher scoring candidates recognised that a lookup could be used to make selecting the interest rate easier.

### Activity 4

Activity 4 was a slight departure from previous examinations in that the using of the model had been split from the loading of the data. Many candidates lost marks by not supplying what was required. The initial screen shots should have been when the system is in the initial state i.e. before any money has been borrowed and before any decisions are made about staffing levels. Many candidates ignored this and consequently were unable to explain the problem. Several candidates were also unaware how to annotate a spreadsheet printout. The marks for the solution required two printouts one of the 5 year plan worksheet and the other of the values worksheet. Many candidates only supplied one so missed out on a number of marks.

### Activity 5

The standard of report again varied with the higher attaining students producing coherent reports and fit for purpose charts. In contrast the lower attaining students managed to get only the content marks. There are a number of marks for the presentation of the report which the lower attaining students missed. Centres should prepare candidates by teaching them a report format. Edexcel has no preference for format but marks are available for headings, sub-headings and titles.

### Administration

Candidates still did not collate the responses as required, instructed on the exam paper. A large number of candidates failed to supply the activity number and the other required items in the header or footer of their printouts. There were also a large number of cases where the printouts were supplied in the wrong order. Centres should be aware that examination documents are subject to marks as stated in the Standard Ways of Working section of the specification. Not having output correctly labelled or in the wrong order is considered to be not "creating an appropriate structure". Marks are awarded for Standard Ways of Working and students may lose these if their materials are not labelled or badly ordered.

All printouts should be attached to the cover sheet via a **single** treasury tag to the hole available in the top left corner of the inside of the cover sheet as shown in the instructions. There should be no need to punch extra holes in the cover sheet and the treasury tag should be passed through the cover sheet and the printouts only **once**. The instructions are clear and the examiners would be grateful if centres could remind candidates to do this.

## 6954: System Design And Installation January 2007

### General comments

There were a reasonable number of entries for this unit for the January window and a wide range of marks were seen from single figures to the mid 50s. There was a highly noticeable difference in the presentation of the eportfolios submitted across the candidate cohort some clearly making a real effort to present their evidence in a way which clearly demonstrated a good understanding of the unit. It was again disappointing to see a number of portfolios which did not demonstrate standards which reflected AS candidates.

Most of the eportfolios submitted were in a format, which allowed the moderator to easily find the evidence. Unfortunately there are still a small but significant percentage of centres submitting evidence in incorrect formats, i.e. Word files and also portfolios with links not working which indicated a lack of summative testing. Eportfolios should be in a format that can be read in a browser and the files should link together. Centres should refer to the following document "submitting eportfolio samples for moderation" which is on the Applied GCE ICT section of the Edexcel website.

<http://www.edexcel.org.uk/quals/gce/ict/as/8751/>

Almost all centres gave feedback on the candidate esheet which showed how the marks were awarded and helped the moderation process. However, some centres are still giving almost meaningless feedback, comments like 'well done' or 'nice screenshots' which, do not aid either the candidate or the moderator. In a relatively small number of examples no feedback was given at all, this then raises the question of whether internal moderation is being undertaken. There was some evidence that the requirements of the higher mark bands were beginning to be appreciated but this was only in a minority of the centres. Assessors are advised to use the e-sheet to explain if the candidate worked independently, this is a requirement of the higher mark bands.

Lack of proof reading was still evident throughout a high number of submitted portfolios with alarmingly many examples of evidence containing uncorrected errors. Candidates are recommended to proof read their work thoroughly and should refer to the quality assurance section of 4.12 of the unit specification.

### Strand (a) - Needs Analysis

Many candidates did not produce a proper needs analysis for a client with complex needs and centres should refer their candidates to section 4.1 of the unit specification. A small number of candidates misinterpreted the need to evaluate two existing systems and looked at similar organisations rather than actual systems which have similar functionality. Almost all Candidates had little problem in finding two existing systems but many could not describe how they matched their client's requirements. Few candidates' were able to evaluate fully the pros and cons of the chosen system in order to give their client an informed conclusion, lack of alternatives and drawbacks were ignored.

Centre provided scenarios should be written in such a way that candidates will have to do some further investigation and fact finding rather than being spoon-fed the requirements. Candidates are expected to use at least one investigative technique and more than one if they wish to achieve marks outside of mark band (section 4.1 of the unit specification)

### **Strand (b) - System Specification**

The main requirement of this strand is that the system needs to be recommended to the client through a detailed and informative systems specification (section 4.7 of the unit specification). It is also advised that centres point out, to their candidates', the information in sections 4.2 to 4.6 of the unit specification as to the what areas should be considered when putting together their system specification.

It was often the case that candidates' just repeated the evidence from strand (a) and tacked on Microsoft Office for software.

The hardware and software specification should be presented to the client in non-technical language many candidates used complex terminology and abbreviations which would not enable the client to have a full understanding what or why they were purchasing the stated items. Copying the specifications from an advert does not always address this area and means candidates can not move out of mark band 1. Ergonomic considerations needed to be given and related to the recommended system. Again candidates often selected furniture, without exception chairs very few mentioned desks or workstations, keyboards, etc which the candidate claimed to have ergonomic qualities but failed to explain why they would be suitable for their client.

### **Strand (c) - System Build**

As mentioned in the June 2006 Chief Moderators report the system build does not need to relate to the system recommended in strand (b) but there should be some indication as to the requirements of the system being built. It was disappointing to see that a large majority of candidates had been given credit for setting up a system to meet the both the client's requirements and systems specification, identified in strand b, even though there was no evidence of the proposed hardware being put together or the stated software being installed. Many candidates included evidence of dismantling then re-building the same system this is not the purpose of the unit.

There were, however some excellent examples of practical work undertaken in the form of short video clips or photos' clearly showing the candidate at work and authenticated by the assessor. However, whilst showing an improvement on the previous moderation period much of the practical work undertaken was still poorly evidenced. In some cases it was not clear that the candidates had actually undertaken the practical work for which they were claiming as their own, many candidates' failed to evidence any aspect of working safely i.e. ensuring the system is disconnected from the power supply, wearing static bands, the proper handling of tools and components.

There were, unfortunately, still some obvious examples of photos being submitted that were not of the actual candidate undertaking their own work, e.g. photos with a web address clearly printed on them, the same set of hands in a photographs submitted by different candidates' and identical photographs of a system with tools, wires and components in exactly the same place with a different candidate standing by the partially built system. This is not acceptable practice and should be discouraged. Setting date and time on digital photographs is one simple way to prove authenticity of evidence.

All candidates evidenced the installing of software of some kind but why they had installed it was rarely explained. The evidence for the configuration activities still did not reflect the candidates' level of work. Candidates should again be advised to address several of the activities listed in 4.9 of the unit specification.

### **Strand (d) - Testing**

Testing should show that the complete system meets the agreed specification standards. It is recommended that candidates should show evidence of testing in the form of screenshots or printed output. A detailed test specification indicating formative and summative testing should be produced and that all hardware and software functions are tested to ensure the complete system is 'fit for the purpose intended'. The comment 'test performed as expected' is worthless without the evidence to prove it.

Candidates should complete a test plan and then produce annotated evidence of the variety of tests undertaken, covering all aspects to cover the hardware and software. It is not essential to produce evidence of every single test which results in many pages of similar tests being undertaken. The quality of the evidence showing real understanding of testing, covering all aspects of the unit, is more important.

Clear records of thorough testing together with how identified problems were resolved should be produced. Often detailed test plans were included but with no evidence to show that the testing had actually taken place or any amendments that had to be made.

Candidates who wish to achieve a mark in grade bands two or three would be expected to have produced detailed test specifications and not just refer to some testing. It is not acceptable to produce a series of tests all very similar in nature. There was evidence of some good practice with candidates giving detailed accounts of how they tested the final system and also some end user testing. Photographs and screen dumps of error messages were included.

### **Strand (e)**

Many evaluations produced did not fully address the requirements of the strand and were often very general and unrelated to the actual requirements of the unit; many seemed to concentrate on the eportfolio. The evaluation needs to relate to the performance of the system and good evidence produced for strand c enables a candidate to do this more easily. Many candidates were not able to either explain how the built system performed or seemed to know what performance criteria they would refer to. Some of the suggestions for improvements were very general and not entirely realistic.

Many of the candidates seemed to find it difficult to evaluate their own performance and often produced lists only stating what they had done. Whilst this is a basic starting point of an evaluation they need to be asking themselves why they did something, did it work as expected, and could they have done it differently. Using a basic check on their perceived skill level they started with at the commencement of the unit and then comparing this with the skills obtained throughout the unit can help candidates evaluate current skill level and should help them to evaluate their own performance during the undertaking of the unit. Feedback from others was often omitted and when present was found to be vague and lacking evidence of who provided the feedback and why.

### General Comments

It was apparent that not all candidates had been well prepared for all aspects of this unit with many concentrating on the production of the website which is only a proportion of the marks. Many candidates had failed to clearly address the planning, design and prototyping requirements of the unit. Centres should appreciate that the planning aspects form the introduction to the A2 unit 8, Managing ICT Projects. Section 5.1 of the unit specification clearly states the stages of the software development lifecycle which forms the basis of the approach to this unit.

The lack of client meant that many candidates were unable to fully address the requirements for strands a, b and c. It was apparent that some candidates had not interviewed a client and produced comments mentioning a client in passing which were not convincing evidence. The Assessor can pose as a "client" to enable realistic role play exercises to take place in order to enable the candidates to be able to access all the marks available.

### Comments on strand a - Outline Project Plan

The comments made in Summer 2006 are relevant to this series:

Some of the projects plans produced appeared to have been done retrospectively. Many of the plans were very brief and did not illustrate the tasks that would be undertaken when planning and developing a website for a client. Many candidates did produce gantt charts using suitable software which is good practice. However some of the plans appeared to be just a list of tasks and did not demonstrate understanding of project planning. Many of the timescales allocated were unrealistic, tasks in incorrect order, no break down of subtasks and little reference to liaison with the client. 5.2 of the unit specification lists the main areas to be included in the plan.

To access all the marks in mark band 1, candidates are required to demonstrate the use of their plan to monitor progress throughout the duration of the project. Copies of the plan at different stages of the project, annotation of the plan/s, project logs, minutes of meetings with the client, can all help evidence the monitoring process. Note that 8 marks are available for this strand.

### Comments on strand b - Customer Requirements

This strand addresses 5.3 and 5.4 of the unit specification. 16 marks are available for this strand. There are two main areas to be addressed and both these are related to the client needs. Fewer candidates addressed this strand well during this series. Without a 'client' it is difficult to evidence it. The assessor, and possibly other colleagues, can pose as the 'client' which is probably the easiest way to address this issue.

Candidates need to investigate the client needs fully using a variety of methods to establish the requirements for the proposed website. Interviews with the client, as well as asking a variety of different types of people to complete questionnaires, ie the client, users, can provide good evidence.

Questionnaires enabling comments to be given rather than just tick boxes are good practice. Presenting the evidence in the form of a report to the client and using headings that relate to 5.3 is also a good way of presenting evidence. Many candidates used the headings in 5.3 but the evidence did not relate to a 'client'.

Most candidates evidenced the second aspect of this strand by producing design work required, ie site maps, storyboards/designs, flow charts so that the client can finally decide if this is what is needed. Some candidates produced page mock-ups in the software to be used which is an acceptable way of producing designs. Attention needs to be given to the topics listed in 5.4 and it is expected the designs will address many of these. Just producing the final website is not acceptable. However, without a 'client' these designs cannot be refined and prototyped effectively which is evidence required for strand c.

#### **Comments on strand c - Development**

There are 20 marks allocated to this strand which covers several areas. Many candidates did not appear to understand the prototyping process required in the implementation of the website. It is an essential aspect of mark band 1 to evidence the prototyping and show how feedback from others (client and potential users) enable the initial design to be refined.

Most candidates produced evidence that a website was created. Most candidates included the website in the eportfolio with a clear link to it. Although there were some websites that clearly demonstrated good evidence, addressing many aspects of 5.8 of the unit specification, there were others that contained few features and did not reflect the level of skill expected for this unit. Candidates did not always evidence the implementation of the site which should also demonstrate evidence of formative and summative testing. Prototyping and liaison with the client and proposed users can provide evidence for this. Candidates must ensure they use the feedback given from the prototyping to refine and improve the website until the final version is created and it is handed over to the client. This feedback can help evidence strand e.

The production of the website on its own does not enable all marks in this strand to be accessed. Some evidence of testing is required for mark band 1 and to access all marks in this mark band there needs to be evidence of prototyping and refinement. Mark band 3 candidates should have evidenced all areas of the strand, carried out extensive testing which demonstrates that a fully functional website has been produced which meets the client needs. Very often there is no reference to the client's original needs in the testing of the final website. However, it was good to see some candidates had tested the websites in different browsers and had given thought to different screen resolutions. 5.6 gives guidance of areas that should be tested.

It should be pointed out that only the final version of the website should be included in the portfolio. A selection of appropriate screen shots can be included in the prototyping evidence.

#### **Comments on strand d - Evaluation**

Candidates did not always address the requirements of this strand and some evaluated their own performance which is irrelevant to this unit. The performance and functionality of the website created is what needs to be evidenced. Candidates should evaluate how their website matches the needs specified by the client. There should be feedback from users who have tested the site and this feedback should be incorporated into the evaluation for the higher mark bands. The proposals for the improvement of the site should relate to any original objectives not met as well as enhancements.

### **Comments on strand e - Proposal**

Many candidates produced evidence for this strand which was information about e-commerce but did not relate the evidence specifically to the requirements, ie the production of a Proposal addressed to the client explaining how the functionality of the website created can be enhanced to support e-commerce. The evidence needs to be in a suitable format in order to access all marks available for mark band 1.

Section 5.7 of the unit specification provides a list of suitable areas that can be included. The proposal needs to clearly define the recommendation and justify the reasons why this would be of benefit to the client. To access all the marks the proposal needs to give details of how the upgrade would be implemented and what would be involved in this process.

### General comments

Most centre assessors gave feedback on the candidate esheet which showed how the marks for each strand of the unit had been awarded, this aided the moderation process. However, some centres are still giving almost meaningless feedback, comments like 'well done' or 'nice screenshots' which, do not aid either the candidate or the moderator. In a relatively small number of examples no feedback was given at all, this then raises the question of whether internal moderation is being undertaken. It was noticeable that the requirements of the higher mark bands were beginning to be appreciated by assessors and candidates' but this was, unfortunately, only in a minority of the centres. Assessors are advised to use the e-sheet to explain if the candidate worked independently, this is a requirement if the candidate wants to enter the higher mark bands.

There was a highly noticeable difference in the way submitted portfolios were presented across the candidate cohort, in general and in centres, some clearly making a real effort to present their evidence in a way which demonstrated a good understanding of the unit. It was again disappointing to see a number of portfolios which did not demonstrate standards which reflected AS candidates.

Most of the eportfolios submitted were in a format, which allowed the moderator to easily find the evidence. Unfortunately there are still a small but significant percentage of centres submitting evidence in incorrect formats, i.e. Word files and also portfolios with links not working which indicated a lack of summative testing. Eportfolios should be in a format that can be read in a browser and the files should link together. Centres should refer to the following document "submitting eportfolio samples for moderation" which is on the Applied GCE ICT section of the Edexcel website.

<http://www.edexcel.org.uk/quals/gce/ict/as/8751/>

Lack of proof reading was still evident throughout a high number of submitted portfolios with alarmingly many examples of evidence containing uncorrected errors. Candidates are recommended to proof read their work thoroughly and should refer to the quality assurance section of 6.9 of the unit specification.

### Strand (a) - Upgrade

A small number of candidates did not explain what was being upgraded and why. The most common upgrades were still the installation of more RAM or a larger Hard Disk, of those candidates that did the upgrade few were able to relate it back to their original system build undertaken in unit 4 (see assessment evidence page 101 of the unit specification).

Only a small number of candidates provided sufficient evidence of the practical work being undertaken to gain marks in grade bands 2 or 3. These provided clear screen shots and photographs' explaining through detailed commentaries what was happening. Candidates often did not include any evidence of relevant testing the upgrade. The installation of a CD-ROM Drive was quite a popular upgrade and candidates' gaining the higher mark bands explained why it was needed by the original client, demonstrated the whole installation and testing process with annotated photographic evidence, and were able to show that the upgrade was

successful. Candidates' did not always demonstrate standard ways of working notably safety precautions undertaken prior to and whilst performing the upgrade.

The most common software upgrade was once again Windows. Overall the evidence for this was far better than for the hardware but once again, in a majority of eportfolios, only very limited testing many candidates' restricting their evidence to either worked or it didn't work. Candidates wishing to gain marks in the higher grade bands should complete a test plan and then produce annotated evidence of the **variety** of tests undertaken, covering all aspects to cover the hardware and software upgrades. It is not essential to produce evidence of every single test which results in many pages of similar tests being undertaken. The quality of the evidence showing real understanding of testing, covering all aspects of the strand, is more important.

#### **Strand (b) - On-screen Support Manual**

Unfortunately many candidates failed to recognise the fact that the manual was to be viewed on screen which resulted in the reader having to continually scroll up and down and in a proportionally large number of instances from side to side. These navigational problems and the lack of a realistic and suitable maintenance schedule prevented many candidates moving into mark band three. Candidates need to be made aware of the different user categories the manual is aimed at, in mark band 2 the level of user is an ICT Technician and in mark band 3 the audience for the manual is someone who should be able to use the information provided without having to refer to others for assistance.

#### **Strand (c) - Collaborative Working Tools**

Most candidates were able to identify and describe the collaborative working tools listed in the specification (section 6.6). The major omissions from the evidenced produced were that candidates' failed to state anything relating to the capabilities and limitations of the tools chosen. These omissions were not always reflected in the grading of this strand.

At mark band two candidates' are expected to describe, in detail, the key features of all four collaborative tools. Most candidates were able to describe in sufficient detail one or two collaborative tools but few described all four in the detail required for this mark band.

It is essential that candidates' in mark band 3 must have used a range (at least 3) well chosen examples which fully evaluate the key features of **each of the four** chosen tools. At this level they must be able to show that the chosen tools are totally suitable for particular tasks and fully describe the processes involved in setting up and using a particular tool.

#### **Strand (d) - Communication needs of a small business**

For this strand candidates' are expected to produce a report, in relatively simple and non-technical language, which describes the communication needs of a **specified** small business with justified recommendations for internet connectivity, security processes, security procedures, an internet policy and the use of email. The points are comprehensively listed within the unit specification (see sections 6.4, 6.5 and 6.7). Not all candidates' provided evidence to cover the points listed above. Many reports produced contained high levels of 'technical jargon' which the average lay person would not fully understand.

At mark band one candidates are expected to produce as evidence at least one sensible recommendation about one of the areas being evidenced and for full marks made at one sensible recommendation for each of the topics. A large majority of candidates failed to produce recommendations for each topic.

Those candidates' who were eligible to gain marks in mark two rarely produced sufficient detailed evidence of an SME's communication needs and did not make detailed recommendations for all five topics. At mark band three it is essential that the report includes some future-proofing elements with a full and detailed justification of the SME's communications needs.

## 6957: Using the Database Software January 2007

### General comments

In the majority of cases candidates had approached the examination in a logical manner and there were a large number of well-designed and innovative solutions to the various problems. From the evidence provided candidates and centres had little difficulty coping with the somewhat unusual format of the exam. The main problems seemed to be scheduling of the 10 hours. Candidates seemed to have organised their time well and evidence of rushed activities was rare.

### Activity 1

Activity 1 was to test the functional specification area of the specification. The question concerned itself more with the contents of the functional specification rather than the format. Edexcel has no particular preference for any format. This was the most weakly answered question on the paper and it was clear that a large number of candidates were unaware of the requirements of a functional specification (section 7.2 of the specification). This is surprising as a functional specification is required in most of the A2 portfolio units. Several candidates mistook the question for the "Understanding the Situation" question in the 6953 examination and repeated large areas of the scenario. This technique does not work in this unit.

### Activity 2

Activity 2 was designed to test the ability of the candidate to create a suitable database structure consistent with third normal form. Some candidates included documented evidence of the normalisation process. This was not necessary as marks are awarded for the final structure not the process used to achieve this. The examiners were looking for five tables although 6 or even 7 tables were just valid. Extra tables of Lecturer and Department tables were accepted even though they only had one attribute other than a primary key which would have to be generated. The most common answer was four tables where candidates had not recognised that the same course could be held many times. A significant number of candidates simply loaded the three data files and made no attempt break it down further. On rare occasions whole centres did this which seems to indicate that in these cases neither entity relationship modelling nor normalisation were taught.

Most candidates managed to load the data correctly onto the tables they created. There were, however, a number of occasions when a record was rejected because of incorrect validation but the candidate had not detected this.

Input masks were accepted as format checks even though they no longer work on imports and action queries. Most students applied a format check somewhere. Marks were also awarded for range checks, list checks and presence checks. Examples of these were rarer.

### Activity 3

Candidates should have been prepared for this activity as the old system was described in the scenario. In the three working weeks prior to the examination, when the scenario was available, candidates should have been thinking about how they were going to implement a solution to this. In many cases it was evident that this process had not happened. Many candidates also lost marks because they failed to include the right evidence. On the other hand most candidates fashioned a working solution and a significant number managed to automate the function using macros and parameter queries. There were a number of innovative solutions which gained high marks.

### Activity 4

The question asked for the report to be printed out and as this was the only evidence required the whole of the report was required. Some candidates supplied design work which was not required and others only supplied one invoice. Candidates who only supplied one invoice disqualified themselves from a large number of marks. For example a mark was awarded if the word "Invoice" appeared on each invoice. If only one invoice was supplied there is no evidence to suggest it appeared on any others. There was also a conditional print which should appear on some but not on others and invoices should not be printed for some customers

### Activity 5

This was a simple activity allowing the candidates to gain a few marks at the end of the examination. Most candidates had created a splash screen and they all probably worked but a lot of candidates lost marks by not supplying enough evidence.

### Administration

Considerable time is still being wasted by the examiners because the examination responses were not supplied in the way required. A large number of candidates failed to supply the activity number and the other required items in the header or footer of their printouts. There were also a large number of cases where the printouts were supplied in the wrong order. Centres should be aware that examination documents are subject to marks as described in the Standard Ways of Working section of the specification. Not having output correctly labelled or in the wrong order is considered to be not "creating an appropriate structure". Marks are awarded for Standard Ways of Working and students may lose these if their materials are not labelled or badly ordered.

All printouts should be attached to the cover sheet via a **single** treasury tag to the hole available in the top left corner of the inside of the cover sheet as shown in the instructions. There should be no need to punch extra holes in the cover sheet and the treasury tag should be passed through the cover sheet and the printouts only **once**. The instructions are clear and the examiners would be grateful if centres could remind candidates to do this.

## **6958: Managing ICT Projects**

### **January 2007**

#### **General Comments**

There were a relatively small number of centres submitting eportfolios for moderation for this window but there was a good range of performance. Although some candidates had evidenced this unit well, demonstrating good understanding of the how to manage a project, many others appeared not to appreciate the requirements of the unit. Candidates need to evidence how they have used project management tools in order to produce a software product to defined criteria. Several centres produced a database product which had been used to prepare candidates for unit 7. Some of the databases produced did not reflect candidates working at A2. Many centres combined this unit with producing the product required for units 10 or 11. This was an effective way of utilising resources. Many candidates structured their eportfolios well with defined links to unit 8 and to either unit 10 or 11.

Some candidates had started their projects last summer to finish at the end of November. In these cases, there was a gap in the liaison with Stakeholders and holding relevant meetings required for strand c. It was also difficult to see how candidates had gained sufficient learning prior to the summer holidays for them to effectively address this unit.

Some candidates produced evidence in the unit 8 eportfolio which was more appropriate to the software product unit which did not demonstrate understanding of how to project manage the production of a software product.

#### **Comments on strand a - Project Proposal**

Two pieces of evidence are required for this strand, a Project Proposal (8.3) and a Definition of Scope (8.4).

Project Proposal - Many candidates did not cover impact on personnel and practices or demonstrate understanding of how the introduction of a new software system can affect the way present employees carry out their jobs. There were examples of candidates not actually specifying when the project will be finished. It is very important that a date for the end of the project is given which is carried forward in the other strands. Candidates usually presented this evidence in the form of a document but some chose a Powerpoint presentation. If a presentation format is chosen, candidates should include the notes as well as there were instances when very brief slides were included which did not evidence this strand well.

Some candidates failed to include a Definition of Scope in their eportfolios which meant they were unable to address all mark band 1. However, there were some very good Definitions of Scopes produced which addressed all aspects of 8.4. Key success criteria is an important aspect as this can form the basis of the End of Project Review Meeting, thereby enabling candidates to access all marks in strands C and E. Project deliverables needs to include the other aspects related to the product and not just the product itself, eg User and Technical Guides as well as the training of staff. Quality criteria should be clearly identified and, again, the Project Completion Date needs to be included in this document.

Constraints and areas of risk should be identified and then provision made in the Plans produced for strand B.

Most candidates included a list of the project's stakeholders but not all included the majority listed in 8.2 with the result that the evidence for strand C was poor. There was confusion as to the difference between the customer/client and the user. Interim review dates should be listed and, again, these included in the Plan as milestones.

There were a few candidates who seemed to be unaware that they were the Project Manager and what this role was.

It should be noted that to access all the marks in mark band 1, candidates should have demonstrated some awareness of the audience and evidence that is full of uncorrected errors does not do this.

#### **Comments on strand b - Project Plan**

It was good to see that nearly all candidates used project management software for this strand which is clearly stated in the specification. A variety of different software packages were used including some which had been free downloads from the Internet. Project management software is required to address this strand effectively. Most candidates produced Gantt charts which is probably the most effective evidence. Some Plans contained very little evidence and many showed little understanding of how to allocate time to different stages of the Project. Some candidates had allocated a disproportionate amount of time to the Planning and Design stages leaving little time for the actual implementation and testing. Candidates should be encouraged to put the key aspects into the Plan and then build the rest of the requirements around these milestones. It was surprising to see some candidates failing to include the handover date of the project to the client. This date should reflect the date specified in the documents for strand b.

Building contingency/slippage into the Plan to take account of potential risks should be encouraged. Some candidates included this AFTER the date the project was due to be completed which is incorrect. There were a few candidates who included dates relating to the building of the eportfolio and not the project itself. The date the eportfolio is due to be submitted should not be in the Plan and it would be sensible for this to be after the handover of the project and after the End of Project Review Meeting giving the candidate time to write the evaluation for strand E.

It was good to see some candidates explaining the key points in their Plans. Some did this as a separate document in the eportfolio, others inserted comments on the Plan itself. The Plan needs to be monitored and updated as changes take place. This should be done in conjunction with the Interim Review Meetings. Strands B and C are very closely linked.

It should be noted that at least 2 potential risks need to be identified in the Plan for mark band 1. These can be evidenced by including slippage/contingency time to take these into account and some form of annotation can clearly identify them.

Only one version of the Plan does not enable candidates to access full marks in mark band 1. It should be noted that the Plan must have been produced at the start of the Project and not produced retrospectively.

#### **Comments on strand c - Managing the Project**

The eportfolio should contain evidence demonstrating that the candidate has managed the project. The organisation of the eportfolio should be structured to show this. There should be a section with links to the various Plans produced as well as a section containing all the evidence of communication with the Stakeholders. This evidence will include minutes of the formal meetings, ie Meetings with the Client, Interim Review Meetings with various Stakeholders and also the End of Project Review Meeting. Informal evidence could include a diary of contact with reviewers, testers, emails, memos, letters etc.

Many candidates produced evidence of several meetings at the very beginning of the Project but then none during the actual implementation of the product. Few candidates included minutes of an End of Project Review Meeting. Another failing that was observed was the lack of content in the Minutes which did not enable candidates to clearly evidence they had adopted a proactive approach to project management. Few minutes referred to the Project Plans. Many candidates ignored

the project management process and only minuted details about the production of the product. Good minutes should include reference to both the product and the progress of the project itself. The best way of evidencing the project progress is to refer to the current Plan.

Changes may need to be made to the current version of the Plan and these can form the basis of new targets to be set for the next Plan period. The changes can be updated and a new version produced which will form the basis of the next Interim Review. Feedback given by the stakeholders is needed so the candidate can evidence how this has been acted on.

It is a good idea to have evidence of the handover of the project to the client and this should include feedback from the client.

Some candidates appeared not to understand the purpose of the End of Project Review Meeting and, even if produced evidence of one, often did not include appropriate evidence. This meeting should be held after the Project Handover and be a debriefing of the project itself. Ideally all stakeholders would be present and contribute towards this. The Project should look at the key success criteria specified in the Definition of Scope and make comments on this. There needs to be good evidence of feedback as this is required to address strand e.

#### **Comments on strand d - The Software Product**

It should be noted that the assessment guidance clearly states: "A product that meets the objectives but was not developed in line with the sequence/timings of phases and activities specified in the project plan should not be awarded any marks."

It is very important that the end of project handover date is clearly evidenced in the Definition of Scope and Project Plans. This date, once set, should not change as candidates are required to manage the project to meet this date. There can be changes in dates within the Plan itself to enable this to happen and these changes should be clearly evidenced in the different versions of the Plans and the minutes of the meetings can provide the explanation for the changes.

Many candidates gave several dates in the various documents. Some plans did not contain the handover date. Candidates were awarded high marks in this strand although only the product and not the project deliverables were completed. 8.9 covers deliverables. Candidates can achieve marks in mark 1 if some of the deliverables were delivered on time but there needs to be evidence to support this. There was some confusion whether this date was the submission of the eportfolio or delivery of the project.

The date that is important for this strand is the end of project handover to the client which includes the deliverables. The End of Project Review Meeting should take place after this date and then the candidate should write up the evaluation for strand e and then have a date to submit the eportfolio. It is sensible to have different dates for the completion of the project and the submission of the eportfolio.

Some candidates had built contingency/slippage into their plans at intervals and allowed enough time when carrying out the summative testing to include a buffer to ensure that the end of project handover date was met.

Many candidates included the products in their portfolios which is good practice. Deliverables such as user and technical guides can also help provide evidence that a product was produced.

### **Comments on strand e - Evaluation**

If there was no evidence of an End of Project Meeting, candidates could not access the marks in this strand. Poor minutes of this meeting also made it very difficult for candidates to access these marks as full feedback needs to be well documented so that it can be used as a basis to evidence this strand. The Assessment Guidance for this strand on page 138 of the unit specification gives further clarification on this.

### Comments on Individual Questions:

#### General

This is the first time this paper has been sat and in fact the first time an exam has been run allowing candidates access to the Internet for part of the time. There was evidence that some candidates had access to either the Internet or electronic storage during the answer production sessions of the exam. Centres must ensure that candidates do not have access to any electronic resources except during the research sessions where the research folder is produced as detailed in the instruction for conduct of examinations document available on the edexcel website.([www.edexcel.org.uk](http://www.edexcel.org.uk)). This folder should then be collected at the end of each session.

The standards of answers given by candidates in this exam series varied widely. There was evidence of some very good responses where candidates had obviously been taught the subject well. Unfortunately some candidates seemed unprepared for the exam and would probably benefit in waiting for the summer sitting. Candidates often lost marks supplying a suitable expansion to their answer. Candidates did not always read the question carefully which resulted in a careless loss of marks.

#### Activity 1

Most candidates were able to state some of the benefits of using a network, the sharing of data and hardware being the most popular benefits although an alarming number thought that rather than buying several copies of a piece of software you could save money by buying one and sharing it. A lot of candidates wrote only one sentence as a description with no additional speaker notes therefore lacking the detail needed at this level to warrant the awarding of any marks. The disadvantages were often answered well with candidates supplying a list of possible disadvantages. Most candidates were able to identify the main types of topologies although many failed to read the question properly and merely included advantages and disadvantages. Being too brief in describing the advantages and disadvantages of the topology lost marks. Many used diagrams although there was evidence of candidates downloading their diagrams. The recommendation was in general weak many just stated less cable needed.

#### Activity 2

This activity was answered reasonably well by those candidates who were able to give quantity, costs and purpose of the equipment needed however marks were often lost by including parts that were already had in place. Marks were also lost by failure to give quantity and/or costs.

Answers about inter-site connection were evenly distributed between internet, leased line, microwave and fibre optic with suitable explanations although diagrams were often rather ambiguous. The recommendation of the connection method was poorly answered with candidates failing to relate their recommendation to Blakes.

### **Activity 3**

The OSI model was only superficially understood. Text was often copied verbatim from internet sources with little attempt to paraphrase or select the pertinent information. Very few candidates identified the network equipment associated with the lower three layers. There was almost no attempt to explain the TCP/IP stack protocols, most tried to explain the purpose of each layer instead.

### **Activity 4**

This was the activity where most candidates achieved the majority of their marks. Candidates showed a good understanding of network design. It was good to see the use of network notepad for the production of these diagrams. Many candidates produced excellent drawings including specification of IP addresses. There was however, a misconception about the role of the server, in many diagrams this appeared to be a central node with many cables radiating from it. Nearly all candidates were able to show the 5 rooms with the number of PCs and printers that would be needed and how they would be linked to the network. It was a pity that many candidates, having produced a detailed drawing, failed to expand the pasted screen shot sufficiently to fill the page and so gain a 'clarity' mark. In general candidates were able to justify some of their decisions regarding location and choice of cable type.

### **Activity 5**

Answers to this activity varied greatly. Some candidates had a good understanding of IP addressing and were able to apply their knowledge. Others merely included a definition of Class A, Class B and Class C addressing making no attempt to apply it to Blakes scenario. The decisions were not always justified with very few candidates gaining more than one mark for this part of the question.

### **Activity 6**

Weaker students had obviously spent too much time on earlier activities and their responses here were hurried and superficial. Many candidates failed to relate the back up activity to the scenario, suggesting data be backed up onto a pen drive. Marks were generally awarded for stating that the backup data be stored in an off-site, secure location. Candidates who had researched Network Codes f Practice and then wrote their own were more successful on this activity. Those who copied an example they had found did not fair so well as it did not necessarily relate to the scenario, some even failed to change the organisations name. There was confusion over access rights although some candidates were able to discuss the roles of various users and hence their rights in relationship to their responsibilities. A common incorrect response talked about copyright. Very few candidates gained full marks for their logical fault resolution plan although some did pick up the marks for discussing a fault finding process which included collection of information, analysis and testing. A large number of candidates merely included a fault log that was either left blank or completed with some possible faults and the action taken.

### **Standard Ways of Working**

In spite of clearly labelled diagrams, many candidates affixed their work by the right hand side. The majority of candidates included the correct details in the header/footer and there were only a few examples of 8 point text.

### General comments

This was the first time this unit has been presented for assessment and the standard of the entry was encouraging. Candidates often linked this unit to Unit 8 - Managing ICT Projects. This is good practice however the candidates need to be aware of the different documentation requirements of the two units.

Some candidates produced a web site is not what the specification requires, although the product may be accessed via a browser. Many candidates produced a product that did not have a timeline; this is an essential element of a multimedia experience.

#### **Stand (a)**

Not all candidates produced functional specifications that described the purpose of the product, the context and intended audience in sufficient detail most provided only brief comments. Some had explained what the finished product must do and how they would measure the success. Better candidates had a "real" end user for the product and could therefore produce a detailed functional specification for the client.

#### **Stand (b)**

Many candidates did not provide sufficient design documentation. Only a few candidates produced comprehensive designs which matched exactly the agreed functional specification.

Also only a few candidates involved others in evaluating prototypes and there was no clear indication where feedback has been incorporated. Often there was very little difference between the prototypes produced and only brief comments from the client for improvement. Again those who had real clients produced better work for this strand.

There was a lack of evaluation by the candidates as to how the work had been developed and refined at each stage. Overall, there was a reasonable awareness of audience and purpose with varying qualities of different types of ready-made and original multimedia components used in the finished product.

#### **Stand (c)**

Candidates are required to produce a working multimedia product that will function fully away from the development environment. Most met this aim within the context of the eportfolio, from where the product should be launched for the purpose of assessment.

A fully working multimedia product was evidenced in the e-portfolios of most candidates and many also met the functional requirements.

The candidates produced 'getting started with...' instructions, of varying quality and detail. Many gave instructions on putting the CD in the computer but failed to provide further information covering system requirements and installation procedures enabling a novice user to install and use the product. A few candidates incorrectly gave instructions to start the product in the candidate's user area.

#### **Stand (d)**

Many candidates provided little evidence of testing, often a testing table was present but there was evidence in the form of screen shots that indicated the results of the tests.

There was little feedback from others, apart from in the prototyping stage of the project. Involvement of others was very poorly evidenced and making use of any feedback, during testing was lacking in most e-portfolios.

Most candidates did not show any real evidence of formative testing many simply produced evidence of simple tests for most of the main elements. Few candidates did any testing at all related to the functional specification or the clients requirements.

#### **Stand (e)**

All candidates produced work which evaluated the whole of the unit but not all commented upon whether the final produced met the specified requirements. In order to achieve MB3 candidates need to produce well-rounded analytical and critical evaluations. Few candidates provided any evidence of feedback on their work.

There was some evidence of points of improvement being identified but not of the feedback being acted upon, many commented very briefly on their own performance and current skill level.

The evidence in this e-portfolio was often mixed with that for unit 8, it is important that the candidates are aware of the different requirements of the evaluation for this unit. This unit requires the product to be evaluated; unit 8 requires that the project management be evaluated.

### **Standard Ways of Working**

In most cases the only evidence the external assessors had for this aspect was the bibliography and the file structures and names used by the candidates.

#### **General Administration**

Most samples were correctly submitted with folders clearly labelled with centre numbers, candidate number and first 2 letters of surname and first of Christian name. It would help if the erecord sheet naming convention is the same

The centre assessor should use the erecord as an opportunity to help the moderator find the evidence required to agree the marks given. The comments by centres often contained only 1 line comments, in other cases no comments at all were provided.

## 6961: Using Spreadsheet Software January 2007

### General Comments

A small number of centres submitted eportfolios for moderation this window but a range of performance was seen. Although some excellent work was seen for this unit, it would appear that many centres have failed to appreciate the main requirement of this unit which is clearly stated in 11.1 of the unit specification, ie: "spreadsheets are used in all sorts of contexts for tasks involving the analysis and interpretation of complex numerical data, such as: modelling; statistical analysis; cost-benefit analysis; simulation; forecasting; budgeting and planning. Assessment evidence b requires the spreadsheet solution to "use functions and formulae to analyse complex data". Unfortunately many of the spreadsheets submitted for moderation appeared to be ordering systems which could more effectively use database software to achieve the solution. This approach prevented some candidates from accessing all the marks available in the assessment criteria. Candidates should ensure that if such systems are used for this unit, there is sufficient scope for the requirements of the unit to be well addressed. Some further development of the basic scenarios could enable candidates to do this.

The use of inappropriate scenarios meant that few candidates were able to show the power of spreadsheets used in decision making. Leading on from this point is the lack of the use of charts and graphs to portray trends and produce results.

It was disappointing to see that some candidates had not produced solutions to a complex problem which reflected candidates working at A2. These candidates were not able to access many marks in the assessment criteria which requires a "technically complex spreadsheet" to be designed, prototyped, produced and tested in order to address all the strands.

Some centres had used the spreadsheet solution created for the complex problem as the project for unit 8. This is good practice but centres should ensure that candidates clearly evidence both units. There should be links in the eportfolio which lead to the relevant evidence without ambiguity.

It was disappointing to see that many candidates had not adhered to the correct file formats required as specified in the document on the following link:  
<http://ict.edexcel.org.uk/home/eportfolios/file-formats/Technical>  
Some eportfolios contained only Word and/or Excel files. Centres are reminded that the eportfolios should have an index page with links to all the evidence for strands a - e and that all evidence should be able to be read in a Browser. Although it is good practice to include the actual spreadsheet solution in the eportfolio evidence, candidates should ensure that the key evidence is in the correct format. Excel worksheets can be saved in html format which conforms to the technical requirements. Strand c includes standard ways of working for all mark bands, and file management/choosing appropriate file formats is part of this requirement.

### **Comments on strand a - Functional Specification**

11.2 of the specification explains the underpinning knowledge required for this strand. Many candidates did not give precise details on how they would “judge the effectiveness of the solution”. Although only 4 marks available in total, good evidence enabled candidates to address the requirements for strands d and e more effectively. The more effective eportfolios showed candidates had responded to a “client” brief and presented a clear Proposal to the “client”. The Assessor can pose as a “client” to ensure the candidates are given the best opportunity to address the Assessment Criteria.

### **Comments on strand b - Design**

It is important that candidates give consideration to 11.3 - 11.9 when thinking about the design of the spreadsheet. The candidates that produced a clear Definition of Scope accompanied by a Prototype and then clearly evidenced liaison with the “client” producing different versions of the Prototype as a result of this evidenced this strand well. It should be pointed out that candidates need to have evidenced “appropriate use of functions and formulae to analyse complex data” in order to address the main requirements of mark band 1. Prototyping, accompanied by explanatory notes, are required to address all marks in this mark band. It is very difficult to evidence prototyping without the use of a “client” and/or “testers/reviewers”. Some candidates showed how they implemented the spreadsheet solutions step-by-step and thought this was prototyping.

Validation was poorly evidenced by many candidates and it should be noted that mark band 3 candidates need to produce at least 4 different measures to validate data and trap errors.

Many candidates referred to functions and formulae but did not produce evidence to show these in use. These should be clearly evidenced in the prototyping and testing of the spreadsheet as well as the evidence required for strand c.

It was good to see that most candidates referred to appropriate future proofing facilities and most incorporated them into the final spreadsheet. Not all candidates clearly evidenced these aspects in the “Technical Guide”.

As already mentioned, few candidates demonstrated good use of charts and graphs in the presentation of output/results from the spreadsheet - 11.8.

### **Comments on strand c - Working Spreadsheet Solution**

To be able to access any marks in this strand, candidates must have included evidence in the eportfolio to show they have produced a “technically complex working spreadsheet”. The candidate needs to explain how the spreadsheet relates to the “Functional Specification” produced for strand a.

The eportfolio should include both a User Guide and a Technical Guide. These Documents should be produced as stand alone documents which are accessed from links in the eportfolio. Many of the documents produced did not demonstrate the facilities within the spreadsheet nor show the spreadsheet had been produced to meet the requirements of the Functional Specification.

Many of the Technical Guides did not evidence all the “behind the scenes” aspects of spreadsheets produced. Indeed, some candidates failed to produce screen prints of the worksheets in formulae view. Some candidates used very few formulae and many did not use formulae reflecting A2 candidates. Vlookups and nested formulae

including Vlookups were in evidence. Few formulae enabling analysis and interpretation of complex data were addressed.

#### **Comments on strand d - Testing**

It was apparent that many candidates did not understand the difference between prototyping the design of the spreadsheet, prototyping the product throughout the implementation process and final/summative testing. The testing should evidence the spreadsheet meets the requirements of the Functional Specification. The design of the spreadsheet and features and facilities may change during these processes but the candidate should explain the changes always referring the process back to the "client" requirements and the evidence produced for strands a and b. Summative testing can include "end users" working through the User Guide to see if they can make effective use of the spreadsheet produced, a peer reviewer working through the Technical Guide. The specification (11.9) also states: "candidates should also make use of any auditing tools available in the software being used. Typically, such tools can identify errors in formulae and suggest corrections."

#### **Comments on strand e - Evaluation**

Many evaluations did not address the requirements of the strand. The evaluation needs to relate to the initial requirements and good evidence produced for strand a enables a candidate to do this more easily. Many candidates were not able to identify or explain shortcomings of the final spreadsheet. Some of the suggestions for improvements were very general and not specifically related to the solution produced. Many of the candidates struggled to evaluate their own performance throughout the project and often produced lists of what they had done. Looking at the skill level they started with at the commencement of the unit and then comparing this with the skills obtained throughout the unit can help candidates evaluate current skill level and should help them to evaluate their own performance during the undertaking of the project.

## **6962: Customising Applications January 2007**

### **General Comments**

The January entry for this unit was low. The projects chosen by many of the candidates were of insufficient scope for an A2 unit. This had a knock-on effect throughout all the strands and limited the marks available in each. The complexity of the project should be similar to other units. Having chosen a suitable project the candidates should customise it using substantial amounts of their own coding. It is not enough to generate coding using the wizards although it is acceptable to produce initial coding this way and modify it. Guidance in the form of how many lines of coding are required is not possible as it will depend on the efficiency of the coding.

### **Comments on strand a**

Candidate's main failing in this strand was a lack of detail. In some cases the actual product was reasonably complex but this could not be ascertained from their specification. Specifying a simple project also meant lower marks.

### **Comments on strand b**

Very few candidates supplied much in the way of initial design. The lack of any process specifications for the coding was disappointing.

### **Comments on strand c**

Few of the projects seen were of A2 standard. If the specification is not considered to be of A2 standard then all the marks cannot be awarded even if the project achieves the stated objectives.

### **Comments on strand d**

Very few candidates provided any evidence of testing.

### **Comments on strand e - Evaluation**

Evaluations were, in general, weak and seemed not to involve the client.

## **6963: Web Management**

### **January 2007**

#### **General Comments**

A small amount of centres submitted entries for this unit in the January window. Generally, the candidates had supplied front sheets that were easy to navigate and the centre had produced eRecord sheets that indicated why the assessor had awarded the marks. Some of the centres did not produce any front sheet, making the moderation of the sample very difficult.

Most of the eportfolios submitted were in the correct format. However, one or two portfolios relied on a link to evidence on the Internet. The centres should provide all the evidence required on the CD sent for sampling as moderator will not access any on-line evidence.

There were several instances where the evidence supplied appeared very similar and contrived. The centres should supply completed Centre Authentication Sheets with every sample after checking that each candidate has supplied a unique portfolio of evidence.

This unit is an extension of Unit 5 Web Development. The unit specification requires the candidate to continue developing the site produced in Unit 5 to provide an eMarketing solution. When creating scenarios or choosing clients for Unit 5, the centre should ensure that the resulting website has the ability to be developed to produce all the evidence required for this unit. The centres may decide to allow the student to develop a new site if the original site topic of client does not have the depth to provide full evidence for this unit. This could be notified to the moderator when supplying the sample for moderation.

The area of eMarketing has been generally misunderstood, with many of the candidates producing eCommerce sites, selling fictitious products or services. The production of eCommerce features, such as Shopping Baskets and item sales, should be avoided. The resulting web site for this unit should be filled with features that promote a product or service. For instance, product reviews and information, help files, tips and troubleshooting guides.

The main aim of the website should be to gather customer information and feedback that will later be used to market the product or service later.

#### **Comments on strand a - Web Hosting and upload of files**

Web Hosting services were generally covered in some detail with a good selection of different hosting companies being described in detail. However the focus of this strand is on a report for the client and discussion should be aimed at the requirements of that client. Evidence to justify the choice of provider must refer the actual client's needs and not general site considerations.

Evidence of uploading and testing the files was very weak. It is not sufficient to show the files selected in an FTP facility reading the be uploaded. The candidate must provide clear evidence that the files were transferred by providing sheet shots of the files on-line. Similarly, testing of the pages once transferred must also be supported with screen shot evidence.

For high marks, it is not sufficient to simply transfer the files to a local site, such as a college Intranet or student folder. The web site needs to be available to the general Internet public in order to attract web crawler programs and general user feedback. Any site not published to the Internet would not be expected to access marks above Mark Band 1 in this strand and strands b,d and e.

#### **Comments on strand b - Promoting the website**

Generally, candidates supplied evidence of five measures identified in section 13.2 on page 213 in the unit specification. Two methods were often implemented, but their effectiveness could not be assessed as several of the websites were not published to the Internet. Feedback from users and hit counts are essential to thoroughly test the effectiveness of the web site over the eight weeks required by strand d.

The moderator will assess the suitability of methods and techniques used to market the web site that are not included in the specification i.e. Web Rings. The process of moderation will be greatly assisted if such techniques are described in full by the candidate.

#### **Comments on strand c - Capturing visitor information**

Data capture forms were often high quality and well discussed. The inclusion of several features such as Combo box controls, presented an easy to use method of capturing information. Testing was generally in Mark Band 1 with very few actual user comments captured and presented as evidence. It is expected that the testing of the data capture form should involve on-line testing for the higher mark bands.

#### **Comments on strand d - Site Management**

This strand suffered greatly from the lack of publishing. In general, candidates did not present evidence that the site had been uploaded and maintained for eight weeks. The site should be complete and checked for accuracy before uploading. Changes to the web site once published should result from user feedback and required updates to the content.

Discussion of accessibility and current legal requirements was detailed but few candidates used this knowledge to assess their web site. Technical documentation was also very weak with few site maps, code prints or site history evidence. Ideal evidence would include screens shots of various pages on several dates with some commentary on the changes made and why they were updated.

Spelling and grammar seen in many of the reports was below the standard required. Candidate must check their work to ensure that obvious errors are corrected. Text included in the web site could be written in a word processing application that allows the text to be checked for spelling and grammar before being pasted into place.

### **Comments on strand e - Evaluation**

Candidates generally evaluated their own performance well and produced several areas for improvement. The use of statistics was very disappointing. Several incredible site statistics were presented, sometimes over extensive lengths in time, with no supporting evidence. It is expected that any site that has been visited by hundreds of users would produce a wealth of user feedback. The centre should ensure that the evidence offered is authentic.

The candidate should only claim success if they can provide supporting evidence that the site is popular and has gathered a substantial amount of user information. Critical evaluation could identify that despite the best efforts of the author the methods of promotion were not effective.

**6964: Programming**  
**January 2007**

**General comments**

This was the first time this unit has been presented for assessment and the entry was limited to a very small number of candidates.

The standard of program written by the candidate must reflect that fact that this is an A2 level qualification. The programs need to be both challenging and sophisticated. If the program is of this standard then the candidate can only achieve MB1 overall. A full listing of the program must be included in the eportfolio. Preferably as a text document. Candidates must also use an object orientated language to write their own code.

**Stand (a)**

Few candidates produced comprehensive designs needed for access to MB3. Those who produced programs below A2 standard were limited by the simplicity of the program. Such programs limit the scope for navigation diagrams, validation procedures and data structures.

The candidates that did produce more complex solutions were able to use more complex validation procedures and had better opportunity to fully describe the content and layout of forms.

**Stand (b)**

As mentioned previously the program must be of a level expected for an A2 candidate, few candidates did this. Many of the programs submitted used only one or two forms and processed little or no data.

Several candidates used code that was not appropriate or effective, it is not sufficient to use the program features in a contrived way so that loops, nested loops and if..then statements appear in the program. They must be used in way that is appropriate and effect for the solution to the problem.

The program must be fully working to gain marks above MB1. Evidence for this is mainly provided in the test results. If possible with the eportfolio limits the candidates should include a working version of the program as well as the program listing.

Only a few candidates used meaningful variable names in their code, this is a standard way of working and an opportunity to gain marks.

**Stand (c)**

This was frequently not carried out in a systematic way, testing needs to be planned and carried out in a modular way to match the modular construction methods used in writing the program. Very few candidates used extreme and boundary data in their testing. Candidates also need to test the program against the functional specification.

#### **Stand (d)**

The user guide and the technical guides should be separate documents accessible within the eportfolio.

The technical guide should contain details of the program, the variables used and structure of any files. To move out of MB1 the technical guide should give enough information for another programmer to get either an overview of the program MB2 or to fully understand the program and be able to make amendments (MB3)

The user guide should be fit for audience and use non technical language, the use of screen shots combined with instructions was effectively used by most candidates.

#### **Stand (e)**

Good candidates related the evaluation to the program specification, very few candidates made use of feedback from others, which is required to reach MB3. The evaluation should be presented as a separate document in the eportfolio. To reach MB3 the evaluation should make suggestions for the improvement of the user interface, at this level the changes should be concerned with the effectiveness of the interface and the meeting of the users needs.

#### **Standard Ways of Working**

In most cases the only evidence the external assessors had for this aspect was the file structures and the use of meaningful variable names used by the candidates.

#### **General Administration**

Most samples were correctly submitted with folders clearly labelled with centre numbers, candidate number and first 2 letters of surname and first of Christian name. It would help if the record sheet naming convention is the same

The centre assessor should use the record as an opportunity to help the moderator find the evidence required to agree the marks given.

## Statistics

### Applied GCE ICT Grade Boundaries

<b>6951</b>	<b>Max Mark</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
Raw	60	48	42	36	30	24
UMS	100	80	70	60	50	40
<b>6952</b>	<b>Max Mark</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
Raw	60	48	42	36	30	24
UMS	100	80	70	60	50	40
<b>6953</b>	<b>Max Mark</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
Raw	90	57	50	43	36	29
UMS	100	80	70	60	50	40
<b>6954</b>	<b>Max Mark</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
Raw	60	47	41	35	29	24
UMS	100	80	70	60	50	40
<b>6955</b>	<b>Max Mark</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
Raw	60	48	42	36	30	24
UMS	100	80	70	60	50	40
<b>6956</b>	<b>Max Mark</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
Raw	60	48	42	36	30	24
UMS	100	80	70	60	50	40
<b>6957</b>	<b>Max Mark</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
Raw	90	60	52	44	36	28
UMS	100	80	70	60	50	40
<b>6958</b>	<b>Max Mark</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
Raw	60	48	42	36	30	24
UMS	100	80	70	60	50	40
<b>6959</b>	<b>Max Mark</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
Raw	90	58	50	43	36	29
UMS	100	80	70	60	50	40
<b>6960</b>	<b>Max Mark</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
Raw	60	48	42	36	30	24
UMS	100	80	70	60	50	40
<b>6961</b>	<b>Max Mark</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
Raw	60	48	42	36	30	25
UMS	100	80	70	60	50	40
<b>6962</b>	<b>Max Mark</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
Raw	60	47	41	35	29	24
UMS	100	80	70	60	50	40
<b>6963</b>	<b>Max Mark</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
Raw	60	48	42	36	30	24
UMS	100	80	70	60	50	40
<b>6964</b>	<b>Max Mark</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
Raw	60	48	42	36	30	24
UMS	100	80	70	60	50	40

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Order Code UA 018624 January 2007

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