

Information & Communication Technology

Advanced GCE A2 7838

Advanced Subsidiary GCE AS 3838

Reports for the Components

January 2008

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This report on the Examination provides information on the performance of candidates which it is hoped will be useful to teachers in their preparation of candidates for future examinations. It is intended to be constructive and informative and to promote better understanding of the syllabus content, of the operation of the scheme of assessment and of the application of assessment criteria.

Reports should be read in conjunction with the published question papers and mark schemes for the Examination.

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CONTENTS

Advanced GCE Information and Communication Technology (7838)

Advanced Subsidiary GCE Information and Communication Technology (3838)

REPORTS ON THE UNITS

Component	Page
Chief Examiners Report	1
2512 Information, Systems and Communications	2
2514 Practical Applications of ICT Using Standard/Generic Applications Software	5
2515 Communications Technology and its Application	8
2516 Project	11
2517 Systems and Systems Management	13
Grade Thresholds	15

Chief Examiners Report

ICT 7838

As so often happens in the January modules many students were entered for the examinations without being properly prepared. This was characterised in the AS units 2512, 2514 by a general appearance of lack of maturity and an inability to apply learned knowledge to scenarios, or insufficient attention to learned definitions. At the A2 level candidates entered for 2517 should have covered not only the complete 2517 specification but also the content of all the other five units, as 2517 is the synoptic unit. Sadly many candidates underperformed and papers of the poorer candidates were filled with blank un-attempted questions. There were however some excellent scripts, well written and well prepared and for that the examiners were grateful.

The examiners are particular interested in responses to questions that require a discussion as an answer. The examiners are looking for the candidates who can present a well argued case with a reasoned conclusion. Candidates who are only able to write down a few points, but do not enter into a discussion will not be awarded the highest marks. On the other hand candidates who are able to present an excellent discussion with a reasoned conclusion will be awarded within top marks for the question as this type of question of all the others, is able to distinguish between the performance of the candidates. It is therefore particularly important that the candidates are prepared to answer discussion questions, not only from the ICT point of view but also candidates should be aware of the shape and form of a succinct discussion with a reasoned conclusion.

2512 Information, Systems and Communications

Report on Candidate Performance

General Comments

The overall performance of the candidates seems the same as in previous January examinations. Some candidates were appropriately prepared for the examination but there was a large majority who were still attuned to the GCSE mentality and did not demonstrate that they have matured since the summer. It was evident that some candidates had learnt sections of the theory by heart but had not learnt to apply this knowledge.

As with previous sessions, the use of requisite language was well documented yet the more technical aspects of the specification, such as networking and databases and the legal aspects were not particularly well known.

There were few candidates who wrote nothing for certain questions. However, a significant number of candidates ignored, or misread, the questions' wording to their detriment. Answers from previous sessions had been learnt verbatim and given even though the question and focus was slightly different.

Clearly some topics are not being covered adequately by centres. Evidence of having been instructed on the interpretation of keywords was not always to be found in the answers.

Comments on Individual Questions

Question 1

Generally well answered with many candidates scoring full marks. Candidates who lost marks did so because they were too vague in their response or gave sources related to existing customers.

The first mark was obtained by many candidates but they failed to capitalise on this and give a description. Some candidates failed to note that the question was concerned with disadvantages and focused on the advantages instead.

An extraordinarily large number still confuse validation with verification, and described verification methods gaining 0 marks. Those who made this mistake did show a good knowledge of verification. Another common mistake was to describe a length check as one which stated the number of characters which must be in the field, i.e. a telephone number must have 11 characters. A few candidates failed to identify the validation method they were describing.

This should have been, and for the majority was, a question where full marks was achieved. A disappointing number gave age as one of the answers even though it was eliminated by the question.

Question 2

Candidates could not distinguish between loading and storing and between storage of files/programs in use and temporary storage on the hard drive.

There is an anticipation that candidates should know the difference between an input and an output device. This question was concerned with input devices yet a large proportion of answers were output in nature. (ii) required a device – an item of hardware not software. The majority of candidates who got this wrong did so because they gave software based answers.

Question 3

The importance of storing backup off site was lost on a large number of candidates. It was also disappointing to see their lack of understanding of storage capacity of devices that are in common use, such as CD, DVD and memory sticks. Numbers in questions are not picked at random but are there because they are significant in some way – the capacity was chosen specifically because it limited the media that could be chosen.

Some candidates were confused by this question and described the importance of backing up work, rather than the importance of testing. Others gave a bookwork answer on the importance of testing during software development, including points such as ‘so you get paid’ and ‘so the customer signs off the project’ which were irrelevant in this context.

Question 4

Most candidates picked up some marks but very few gained full marks. Candidates regularly gave the same answer in different ways without expanding on it. Lists were also common without the depth required to gain all the marks.

Question 5

There were some very good answers here; however the main problem was candidates repeating themselves in the question, labouring over one point, and failing to gain full marks. It was not possible, as some candidates felt, that stating one method was batch and one interactive would gain marks.

This was very poorly done with few candidates scoring full marks. Many candidates did not appear to know about linkers and loaders and either did not answer the question, or made up completely wrong answers.

This should have been two easy marks with a book response required. Despite appearing regularly in past examination papers, many candidates still seemed unable to get even the simple point that commands are typed. A large proportion of candidates seemed unable to home in on ‘characteristics’ and focus on the essence of the question.

Question 6

In (a)(i) most candidates gained a mark through example, but failed to expand enough to gain the second mark. Very few were able to correctly define a field. In (a)(ii) some explained that relational databases did not have duplicate data, and gave good explanations of why this was so, while omitting to actually answer the question and explain duplicate data.

This was very well answered with most candidates gaining at least half the marks. There was however a tendency to use easier and faster instead of expanding what is actually meant. If more candidates had taken the time to think about what was easier and faster and why it was, they would have gained full marks.

(i) was very poorly done with the majority of candidates failing to be specific enough to gain marks. Descriptions of the types of access was found to be very common in the answers but unfortunately this was not the question asked. Examples of use related to the context were very rarely seen.

(ii) was also poorly answered with many candidates stating that serial data was in no order which is incorrect. There was a distinct lack of thought in many of the candidates’ response to this question.

Question 7

It was pleasing to see that the majority of candidates knew what a ring topology looked like. The labelling of the diagram does still need to be improved.

b) The focus of the question was on advantages to the network manager. Very few candidates picked up on this and gave generic advantages of networking the computers, thus losing marks. A relatively straightforward question was complicated by candidates giving rote learnt answers.

c) This question was generally well answered.

Question 8

This was generally well done, but the common mistake was to identify rules which did not apply to the actual choice, i.e. 'change it often'. There was also a lack of clarity in the answers – alphanumeric does not force the user to include numbers as well as letters.

Question 9

Unfortunately the word "facility" confused many candidates. The stronger candidates were able to identify real facilities such as file exchange and recording and gain some marks, but lost out on full marks because of a lack of description. Weaker candidates lost their way and moved into advantages rather than facilities.

Question 10

Most candidates gained high marks on this question but there was still a lack of clarity in identifying problems that meant that the number of candidates gaining full marks was limited. The question did not ask for solutions but problems. There is also, amongst the student body, the idea that just using a computer for a long time will cause health problems and no differentiation between correct usage with appropriate equipment and incorrect usage.

Question 11

It was apparent that the majority of candidates were unaware that the ECA existed. Many candidates left this question blank and many of those who did attempt it gave answers related to other Acts.

Question 12

This type of question is now common as the final question on the paper. It was hoped that over time candidates would understand the requirements of a discuss essay however this has not proved to be so. Whilst most candidates realise that 'discuss' questions necessitate two viewpoints, nearly all responses were a succession of identified impacts. Few candidates were able to expand upon these impacts and develop an answer that included a progressive explanation of just why they were advantageous or disadvantageous to the company in question.

Lists were common as were descriptions of how ICT could be used within the company. Some candidates did begin to touch on the impacts of the introduction of the systems but to gain high marks, the majority of the essay must be based around these impacts and not, as many were, based around the descriptive elements.

Discussions with very little substance left no reference material upon which to base a satisfactory conclusion. The resultant weak ending was, too often, not worthy of an award.

2514 Practical Applications of ICT Using Standard/Generic Applications Software

Report on Candidate Performance

General Comments

This is a scenario-based paper and as such candidates should give examples, when asked for, in the context of the scenario. In some cases it was evident that the candidates had some knowledge but were unable to apply this knowledge to the context of the questions. Failure to do this leads to candidates failing to be awarded marks for examples. Some candidates are still using terms such as consistent and professional without any explanation or qualification

The examination technique of many candidates hindered their ability to score marks – Centres must encourage candidates to practise examination technique and assist the candidates to understand what is required by the command words such as discuss, explain, describe, state. Many candidates could not explain how to use graphic libraries, or merge fields simply describing these instead.

There appears to be a general lack of knowledge of technical terminology relating to applications. There is no doubt that candidates are able to manipulate applications in a practical manner but are unable to apply their practical skills in a theoretical situation.

It is important that all areas of the specification are covered to ensure that candidates have a wide range of knowledge.

Comments on Individual Questions

Question 1

- (a) The most common correct answers related to pixels and pixilation (described in many ways). Many students seemed to write lengthy sentences as required in a 'describe' response but failed to gain the marking points. Many commented on file size, compression, switching on or off,
- (b) This question was relatively well answered though most candidates mentioned corporate identity and company recognition, but no more. Many candidates did not know the difference between house style and corporate identity.
- (c) This question was well answered with many candidates showing a quite good familiarity with the use of master slides, probably from practical experience
- (d) This question was not well answered by the majority of candidates with many giving the same example twice, first as an explanation and then repeated as an example. Few gave answers which included the practicalities of the sound running automatically or via a mouse click. Very few examples were given in context.
- (e) Many candidates described how 'buttons' could be used without referring to 'navigating the presentation', so an answer about hyperlinks to the internet or playing videos did not gain any marks. Many examples just referred to next/previous slide.

Question 2

- (a) Generally this was poorly answered, with few candidates gaining more than half marks. Many candidates thought that style sheet meant template and thereby struggled to gain more than the first mark for each section. Candidates repeated points and often contradicted themselves. Disadvantages were not as well understood as advantages.
- (b) Few candidates gained both marks for word wrap, as most described either wrapping text around images or wrapping text at the end of a line, but very few gave both. Paragraph styles were described by many candidates in terms of applying the same style to the whole document. Wizards were well described.
- (c) Candidates answered this question well with many obtaining high marks although footnotes were often described less well than header or footer.

Question 3

- (a) Few candidates gained full marks for this section. Usually they either knew the answers for full marks or only knew a very limited amount for 1 or 2 marks. Clearly many students have not covered this in enough depth or often enough. Some candidates tried to describe the process of normalisation rather than the advantages. Many answers just referred to remove redundancy, remove duplicated data and atomic data. Yet again, it was clear which centres had covered this part of the specification and which had not by the range of answers from the candidates.
- (b) Many candidates failed to describe cross-tab queries and some who did seemed to think it was about queries with two or more tables. Many gave answers about ordinary select queries. Examples for both sections of this question were often weak (references to the surname 'Smith') or used general examples which were outside the context of the Driving School scenario.
- (c) Design considerations were not understood by many candidates, some who thought that it was the content that was to be considered rather than the design of the layout. Very few candidates scored the first mark and so were unable to gain the second mark.

Question 4

- (a) Many candidates thought FILL IN used data from a database.

IF THEN ELSE usually scored 1 mark for conditions. Many examples were not in context of the driving school and could have been any application with references to 'Mr - male - Mrs'
- (b) Many candidates simply repeated the question's key words (merge fields) in a variety of formats or gave vague references which failed to gain the marks. Few candidates understood that this was a 'how' question and simply just described merge fields. Many candidates thought mail merge can only be used on documents/letters
- (c) This question was generally poorly answered. Few candidates understood that this was a 'how' question and simply just described graphic libraries (often incorrectly). Many candidates gave vague answers, with very few describing how to obtain suitable map symbols for an off-road course and to place and scale them onto a map of the competition route.

Candidates must read the questions in the context of the scenario rather than just responding to key words in the question.

Question 5

- (a) Good candidates gained marks by accurately describing formulas and functions as appropriate features. Some candidates did not consider the context carefully enough, and described the use of graphs/charts or the use of 'What if'.

Many candidates gave out of context answers for section (ii) (e.g. VAT; price of lessons etc). Many candidates gave 'Number of competitors' as an answer, not appreciating that in this modelling exercise it would not yet be known, so the parameter should be the *maximum* or perhaps *expected* number of competitors, (and maybe the *minimum* number as well).

- (b) Many candidates defined macros well and often quoted the text book description. However, a significant number of candidates incorrectly described 'toolbar' icon as the example of the use of macros in a spreadsheet.
- (c) A minority of candidates answered these questions by giving a list of possible graph types – examiners only marked the first answer given. Most candidates did not give the correct answer of a radar or comparative bar chart.

Question 6

Centres need to provide guidance to candidates as to how to answer this type of question correctly as it appears in this format regularly on this examination paper. Too many candidates described the design features of an on-line booking system rather than how it could be used.

A significant number of candidates did not "describe *how* an on-line booking system could be *used*". Instead they gave advantages and disadvantages of such systems; or described the physical requirements – hardware and software, or the impact on staffing, or they described the many inputs fields that they would need to complete to make a booking

Candidates who described the process of using the system – finding out course options, costs & availability, then making choices, secure payments and receiving email confirmations, etc, obtained good marks.

Many candidates extended their answer outside the allocated space, often writing extended prose which contained a limited number of marking points or which contained repeated points.

2515 Communications Technology and its Application

Report on Candidate Performance

General Comments

The overall performance of the candidates seems lower than previous examinations. Despite this, on the whole, most candidates seemed appropriately prepared for this paper.

Difficulties arose when the use of requisite ICT related language was required. The technical aspects of the specification were not particularly well known by a significant number of candidates and this was reflected in their marks. The terms clearly appear in the specification and centres should ensure that candidates are familiar with them.

The number of candidates who wrote nothing on certain questions has, thankfully, diminished. A significant number ignored, or misread, the questions' wording. These approaches are unlikely to gain a mark that takes a candidate beyond the threshold of a pass.

Evidence of having been instructed on the interpretation of keywords was not always to be found in the answers. Given that marks are awarded for how the question is answered, attention should also be given to how the question is constructed when considering a response.

Centres should remind candidates that it is difficult to award marks when handwriting is illegible.

Comments on Individual Questions

Question 1

- (a) Many candidates were able to give reasoned limitations of satellite navigation systems but restricted themselves to low marks by being unspecific about the initial cause. Too often, a second limitation was a contrived version of the first, indicating a lack of wider reading.
- (b) Candidates gave well documented answers about specific stages in this process, yet full answers that described all aspects were rare. Confusion with satellite phones was common and indicated that candidates need to allocate time to reading the question fully before planning an answer. For a generation that uses mobile phones constantly, many had very little idea of how they actually work.

Question 2

- (a)
 - (i) What should have been a straight forward question for the majority of candidates, resulted in restricted marks for many of them. Primarily this was due to candidates not reading the stem of the question and committing to an answer without due consideration. Too often, 'quicker' and 'easier' were used as a refuge for the weaker candidates.
 - (ii) Many candidates again failed to read the question fully and relate answers to the customer. The use of menus and submenus by the customer was not well considered.

- (b) (i) Many candidates gained both of the available marks for this question. Not only had they learned what is meant by the term 'natural language', but they were also able to relate it to appropriate use by customers and in so doing, fully answered a 'describe' question. .
- (ii) When asked for an explanation of two advantages, too few candidates could expand upon their responses in part (i) and gain all of the available marks. Centres may well consider using questions of this nature to indicate how to develop answers without treating the keywords in isolation.
- (iii) As with part (ii), responses were limited and mainly focussed on ambiguities of meaning without wider consideration of disadvantages.

Question 3

- (a) (i) Many candidates used the opportunity to secure both marks using a logical thought process and identified opportunities for technical training.
 - (ii) Too many candidates used this question to demonstrate all they knew about the advantages of video conferencing, particularly where less travelling is required. However, unless they relate these to changes in working practices, a full description is not given and the award of marks is limited.
- (b) Answers which addressed monitoring were well documented and this was pleasing to see. Furthermore, many candidates were well able to fully describe how the company's management could utilise this to their advantage and restrict malpractice. Many answers flowed beyond the number of available lines given for the answer which indicated that candidates need to observe just how many marks are available when planning responses.
 - (c) Many candidates were able to gain full marks for answers that were well considered and suitably structured. Expansions to points often included sound reasoning.
 - (d) Unfortunately, the 'quicker' and 'faster' responses started to re-appear in this question, an indication, perhaps, that some candidates had not been given the opportunity to consider comparisons of hardware and relate the advantages of one over the other in a given scenario. A lack of detail restricted many responses, some of which were purely a repetition of the first advantage given. The term 'bandwidth' was often linked with 'faster' without any consideration of the volume of data over a given time span.
 - (e) The features of this type of optical communication were ably communicated. The relative advantages and disadvantages were less so.
 - (f) For a single mark, the purpose of a network bridge required candidates to give a textbook definition which, pleasingly, many did.
 - (g) The function of a hub had clearly been understood by many candidates, the vast majority of whom continued with further expansion to gain both of the available marks.

Question 4

- (a) Pleasingly, many candidates addressed this part of the specification with confidence, stating what standards are. With a little more consideration, a full description of their importance could have seen more marks awarded.
- (b) Many candidates demonstrated some understanding of layers. It was apparent that some centres taught the OSI model well, as candidates were able to list all layers. Few though were able to expand upon this to a full explanation of their role, with many attempts too vague for the award of marks.
- (c) As with part (b), many Centres are teaching this part of the specification well. Candidates are, in the majority of cases, perfectly able to name methods of detecting errors that occur during data transmission. 'Parity check' and 'hamming code' dominated the responses. Unlike part (b), a large majority of candidates provided an accurate expansion that gained full marks for this question.
- (d) Surprisingly, many candidates have grasped what the process of encrypting data does, yet very few considered relating this to the security of data in their response.
- (e) Too many candidates wrongly associated authentication with the identity of individuals or associated it with the verification of user ID's and passwords.

Question 5

Candidates seemed able to state well in excess of the required number of services provided by cable television companies. Very few expansions were recognisable when contributing to complete descriptions as candidates' responses towards the end of the paper became erratically constructed, relying on brand names in the vain attempt of gaining a mark. Examination technique would be a sound topic to spend time upon, giving a far more fruitful result.

Question 6

- (a) Descriptions of the limitations were rare and the scenario of recycling was not always mentioned.
- (b) Candidates in general produced some salient points, but presented them in a way which did not allow them to access most of the available marks. Too often the advances that candidates identified did not fully develop into a reasoned explanation that was worthy of any further marks. Reference to each of the points given was scant and those producing lists of perceived advantages gained very few marks.
- (c) Candidates are unlikely to gain marks from answers that refer to the workings of national government rather than the services provided by local government websites. Without reading a question thoroughly, candidates restrict the marks available to them from the outset.

2516 Project

General Comments

The cohort for the January session was, as one would expect, small and probably not representative. The suspicion is that the candidates are either resubmitting work or they are candidates who have been encouraged by their Centres to complete the project in the first term of the final year to allow for a concentration on the theory work for the remainder of the year. The intention of the qualification is to be as accessible to Centre requirements as possible, but it does mean that the work seen is not representative. Given the above comments, it is on the work seen that this report is based, not on comments from previous reports.

The presentation of the work continues to impress and the overriding impression is of candidates who are genuinely proud of their achievements and wish them to be seen in the best light. Some of the work seen by the moderators was very good and extensive to say the least. It is fervently hoped that the candidates get a lot more than simply an A¹ level grade from the large amount of effort that they have expended over a long time period. Centres are thinking about the way that work should be presented in order to assist the moderator and to ensure that the evidence that is going to be important to the moderators is easily found. To that end, contents pages with a sensible amount of detail are being produced

Areas of weakness continue to be with the interview. This is unsurprising, as the ability to conduct a convincing interview which shows the interviewer changing the direction of the questioning is undoubtedly a high level skill. There was evidence of more able candidates being able to achieve this, and methods that can be used to help candidates have been discussed at training sessions. However, there was also a rise in the number of candidates who were producing multiple interviews. While there is sometimes the need for a second interview when the analysis of the results of the first highlight shortcomings in the information obtained, there are concerns that through conducting two interviews candidates are only demonstrating that the same 'verbal questionnaire' is being used twice. An example of what we are seeing in the transcript is 'If archived, for how long?' this is a question straight from a questionnaire. There is nothing wrong with doing more than one interview, and if it is sensible then it must be credited, but it does not replace the need to do the interview properly in the first place. There is often a good reason for doing another interview but this session there were some projects where the candidate has done four interviews with the same person. This seems to be a case of trying to use quantity to make up for quality and although not penalised in any way by the assessment scheme, the candidates are restricted by the amount of time they can realistically be expected to spend on this work.

The pieces seen this session are demonstrating that centres are understanding the importance of the testing and planning the testing before the development of the software. This is so important in striving to get the testing to assess the right things and candidates are showing an understanding of this and many are demonstrating an excellence, not only in the testing but in the presentation of the results.

The final two sections of part (c) tend to be in need of work. Section (ii) about the installation of the work in the organisation and the training of the personnel involved is sometimes being too generously assessed. It is important for centres to consider two things about this section, one is that it is considered by the moderators to be (along with the interview) among the more difficult tasks and should be assessed as such, and secondly it is important that the work here shows a clear collaboration with the end-user/client. It is expected that a weaker candidate will decide on the method of implementing the system into the organisation and the better candidate will explain their decision in relation to the alternative methods. However, it is the most able candidates who will explain the options in language suitable for the end-user to understand, will

then give a reasoned argument about each and ensure that the end-user plays a full part in the decision. Section (iii) provides an example of something that should be simple and that most candidates have no problem with, but which is very important. That is, the log or diary. It is important, not least because, done properly, it provides a short, yet very informative, synopsis as to the way the solution developed. It is this that moderators may turn to first. Candidates need to remember that although they have lived with this problem solution for so long, a third party cannot immediately visualise it as well.

The documentation continues to improve. Candidates are producing very acceptable pieces of adaptive maintenance in the technical guide and the on-screen help is also being provided by most candidates. However, it is often not easy to find the evidence and candidates are strongly advised to make reference to where they can be found in the contents pages for each of the guides. It is accepted that such references would not be in the 'real' versions, but the purpose of the guides must be to provide evidence for the moderator to see and if the moderator cannot find it then it defeats the purpose.

2517 Systems and Systems Management

Report on Candidate Performance

General Comments

Although there is traditionally a relatively small entry for this unit in January, there are still too many candidates being entered unprepared. This year some excellent papers were seen, where candidates were thoroughly prepared, knew their definitions and wrote in clear English using correct punctuation, grammar and technical terms. Many other papers were characterised by large areas of blank, unanswered questions and poor, scrappy answers. It is important for the candidates morale that they are not entered for this unit before they have covered the entire course. This unit is the synoptic unit and as such may contain questions demanding knowledge from any of the other five units of this specification.

Candidates should take care with discuss type questions, credit being given to well structured arguments based on technical knowledge and evidence that the entire course has been studied.
Comments on Individual Questions

Question 1

- (a) Most candidates were able to give some suitable examples, though often only one example was given. Many gave vague or out of context answers which of course scored no marks. Up-to-date was often confused with accuracy.
- (b) The distinction between decision making and strategic planning was not often clearly understood, leading to some answers which did not clearly make a distinction between them. Generally well answered.
- (c) Generally well answered with most candidates being aware of internal resources.
- (d) Most candidates were sound on the understanding of health problems, but safety problems are still confused with health problems by some. Several answers wrongly described data security issues.
- (e) Candidates found this question straight forward, with some excellent answers being offered for the integrated office system.

Question 2

- (a) The majority of candidates were able to score marks for describing the purpose of the NIC and server, though only the best were able to gain full marks.
- (b) The benefits and drawbacks of a star network were generally described well though clearly some candidates were not prepared for this question.
- (c) Few candidates were able to describe a tool or technique available to a project manager. Whilst the distinction between budget and deadlines was understood by most candidates who were able to describe those distinctions in the answer, the question asked for considerations to be given when planning the project and thus very few candidates were able to gain full marks.

- (d) Describing the contents of the design specification was disappointingly answered which was particularly surprising given that the majority of the candidates must have reached that stage of their project by January. However some good answers were seen concerning the effective design of the human-computer interface. The technique of proto-typing was generally well understood. Though many candidates were able to provide examples of process modelling and data modelling techniques, many were not sure, or did not point out, which was which.

Question 3

- (a) and (b) This question was answered well by the majority of the candidates, all of whom seemed to be aware of custom-written and off-the-shelf software.
- (c) Installation methods were generally well understood though some candidates had difficulty in remembering names for the methods, or got the methods and the names muddled, particularly between pilot and phased methods of installation.
- (d) The role of the review was understood well and some good answers were seen.

Question 4

The impact of change (a) and the management of external change (b) was generally well answered with some candidates providing interesting and thoughtful ideas.

- (c) Most candidates seemed to have no idea of what a nomadic network described. Some vague and some trivial answers were given and most did not answer in context.

Question 5

Most of the answers to this question were disappointing, though occasionally good ideas came through. This type of question has appeared in every 2517 examination paper since the specification was first examined. Using past papers and answers is probably the only way to get a good sense of what is required. Candidates are not expected to describe at length the developments of hardware and software - this is not a computing paper - but they should use their overall knowledge of ICT gained from the study of 6 units, their background reading and discussions and their imagination, to describe what might be possible with these developments.

Grade Thresholds

Advanced GCE (Subject) (Aggregation Code(s))
January 2008 Examination Series

Unit Threshold Marks

Unit		Maximum Mark	a	b	c	d	e	u
2512	Raw	90	54	48	42	36	31	0
	UMS	90	72	63	54	45	36	0
2514	Raw	90	54	48	42	36	31	0
	UMS	90	72	63	54	45	36	0
2515	Raw	90	46	41	36	31	27	0
	UMS	90	72	63	54	45	36	0
2516	Raw	120	98	87	76	65	54	0
	UMS	120	96	84	72	60	48	0
2517	Raw	90	58	53	48	43	38	0
	UMS	90	72	63	54	45	36	0

Specification Aggregation Results

Overall threshold marks in UMS (i.e. after conversion of raw marks to uniform marks)

	Maximum Mark	A	B	C	D	E	U
3838	300	240	210	180	150	120	0
7838	600	480	420	360	300	240	0

The cumulative percentage of candidates awarded each grade was as follows:

	A	B	C	D	E	U	Total Number of Candidates
3838	12.3	34.6	53.7	76.5	96.9	100.00	163
7838	3.6	28.6	60.7	89.3	100.00	100.00	28

For a description of how UMS marks are calculated see;
http://www.ocr.org.uk/exam_system/understand_ums.html

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