

Computing

Advanced GCE A2 7820

Advanced Subsidiary GCE AS 3820

Report on the Units

June 2007

3820/7820/MS/R/07

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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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Chief Examiner's Report

General comments

Candidates still provide answers that contain many grammatical and spelling errors. Often this led to candidates gaining fewer marks than they perhaps should have. Careful use of good written communication is essential as is the correct use of technical terms. Handwriting still causes problems during marking and, although examiners are expected to make every effort to read an answer, sometimes the writing is illegible causing loss of marks.

Many examiners also pointed out the lack of ability of some candidates to apply their knowledge. Generic answers were common when answers should have referred to the scenario given in the question. This was particularly obvious in Units 2508 and 2511. The Specification specifies that questions on these papers will be based on short scenarios.

Although questions on Unit 2506 were better answered than in January 2007, this was not the case for Units 2508, 2509 and 2511. Many candidates still do not understand that Units 2509 and 2511 are A2 units and answers should be at a higher level than those for the AS units. This is particularly true for Unit 2511 where it appears that candidates have not studied the Specification to a sufficient depth.

Unit 2506

General Comments

The paper seemed to be fair to candidates. There were no reports of candidates experiencing time problems. Similarly, with the exception of question 1b, there were no reports of any questions which misled the candidates because of their wording. All questions provided the full range of credit.

There is evidence that there are fewer candidates who are unprepared for the questions than there are in the January session. This is presumably because the candidates are more mature and they have a better understanding of the expectations of the paper. However, there are a small number of candidates who should not be taking the exam. Some candidates are still answering as GCSE candidates. They have a reasonable understanding of the specification but are lacking in examination technique. Learning to read the stem of the question rather than latching on to a key word, as one examiner put it, "Basic definitions were good, candidates now need to learn to apply them to the questions." A good example was question 8c (iii). Virtually all candidates were able to define half duplex communication but the number who could describe the significance of this to the situation was limited.

Many candidates performed well and produced work which was a credit to themselves and to the teachers who had prepared them. Presentation was, generally, excellent with most scripts being legible and giving the impression that the candidates cared about the impression that they were giving.

Comments on Individual Questions

- 1 (a) A simple starter question designed to allow candidates to settle down and to hopefully earn full marks and the majority of candidates answered this correctly.
(b) Backing storage is a recognised term, so it was a disappointing that many candidates latched on to the first word and read 'backing up', going on to give two reasons why it was important to back up data on a system.
- 2 (a) This question was well answered by most candidates.
(b) Again, well answered in most cases. Those that could not answer or misunderstood the question seemed to be Centre based leading to the impression that this is not covered in some Centres.
(c) A good example of a higher level question. Nearly all candidates understood the characteristics of ROM but few were able to consider why some of those characteristics were important in this particular application.
- 3 (a) A good discriminator with a full range of marks.
(b) Another example of a question where the facts are known but not applied. Most were able to give the definition of a multi-tasking OS but going on to apply that characteristic to the example given was a higher level operation and a good discriminator between the lower and middle grades.
- 4 (a) This question was well answered. The main stumbling block was the first, for which the expected answer was integer.
(b) Most candidates gave a good definition of backup. This is encouraging because for many sessions the need for Centres to concentrate on backup and archive has been emphasised. However, the rather more difficult concept of 'a backup routine' is still challenging for candidates as is the concept of archiving not just being a copy but being a replacement of the data on the primary storage. Another example is information/data, one that has already been seen is storage/memory and one that comes up later in the paper is computer/processor/CPU.

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- 5 (a) Compression was a well answered question, however, too many defined error checking as making sure there were no viruses and most were convinced that the error checking had to be done before the data was transmitted.
(b) Most gained a mark here but there were few who could relate the response to the scenario of streaming a video across a network.
- 6 Most scored full marks on what was designed to be a straight forward question. However, there are many candidates who decide to make the question more difficult by giving descriptions of the data to be used rather than the data itself. It was not possible to define extreme data here because the limits of the numbers were deliberately not given but attempts at the extreme were tried by some candidates and ranged from nine to one candidate who decided to fill the rest of the page with zeroes.
- 7 (a) A significant number of candidates could not answer this question which was disappointing.
(b) This was designed to be the 'hard' question on the paper and so it proved. The question proved a good discriminator at the A/B grade, particularly in c (ii) where only the better candidates were able to rise above the idea of making the algorithm more complicated.
- 8 (a/b) Well answered, though there was some evidence of CD ROMs creeping back in as backup media.
(c) When parallel data transmission is asked with serial transmission, most candidates get it right. When asked on its own like this, the majority of candidates mix it up with either duplex data transmission or packet switching. Given this start, the rest of part c was surprisingly well answered with some good responses to interrupts, far fewer going to or from primary memory and many candidates describing how they need to be used to keep the processor aware of the situation of the peripherals.
- 9 (a) Well answered. Some candidates daisy chained the computers in the bus topology. This is specifically given as a possibility in the BCS dictionary and so it was allowed in the exam. However, it would be nice to see it replaced by the more acceptable 'back-bone' model.
(b) I suspect most candidates saw the word 'interface' and wrote about a GUI. It was meant to be difficult.
- 10 This question was deliberately reworded from the normal text. The use of the word 'purpose' seemed to encourage many candidates and the results were much better than usual. There were still the problems of the control unit controlling everything and the memory unit remembering everything, though the number of candidates saying that the Arithmetic Logic Unit does the arithmetic and logic has gone down.
- 11 The important thing was to see if the candidate could work out the different routes that the Repeat and the While sent the user through the algorithm. Extraneous wording was, largely, ignored and the examiners concentrated on the numbers produced. The idea was that if the candidate had worked the algorithms properly they were given the answer to the last part of the question. The differences between the different repetition constructs are not difficult and a little practice at working them will give most candidates the necessary knowledge to answer the questions on the papers.

Unit 2507

General comments

Many Centres continue to deal with the administrative side of this specification accurately and within the Board's deadlines. Others do not do so and the moderation process becomes time-consuming for both moderator and staff at the Centres. This is particularly so when Centres fail to include sufficient information about where and why marks have been awarded, necessitating the return of the work to the Centre for clarification, and when large Centres are a week (or more) late even sending their MS1s to enable samples to be chosen, the process of moderation can be seriously delayed. These problems can lead to delays in awarding grades to the candidates from these Centres. Most Centres do seem to be better about clerical checks on the marks awarded and transferred to the MS1s, but some errors continue to occur. When sending the MS1 for the moderator to choose a sample, the Individual Mark Sheets and Centre Authentication Forms should be included. This means that each candidate must clearly identify their work.

The incidence of plastic wallets continues to go down and most candidates now present their work effectively. The best way to present the work is to fasten the pages of each task together with a treasury tag and place all of the tasks for a candidate in a document wallet. Each task should contain the candidate's name, Centre number and candidate number. Remember, all mark sheets have to be removed, by the moderator, from the candidates' work.

Comments on Individual Questions

Task 1 (Partial database)

Parts (a), (b) and (c) each required that tables be set up, with appropriate reasons for including the attributes. Many candidates continue to refuse to accept the requirement to give a reason; they provide no more than an often ineffectual description; worse, Centres continue to award marks for these inadequate answers. Indeed, it is not uncommon for there to be sufficient disparity of standards on just these questions to result in an overall adjustment to a Centre's marks. For example, the inclusion of StudentName as an attribute with the reason 'to identify the student' is not a reason. The StudentID identifies the student.

Part (d) required some data to be entered in the tables and was generally well done and accurately marked.

Parts (e) and (f) required the creation of interfaces and the production of reports. Occasionally input forms did not match the information output on the accompanying report; Centres should have penalised this. Many reports had inadequate titles. Most do now include a date and presentation of data seems to be improving. However, a number of candidates provided screen shots of their reports, these often did not include the whole report. Reports should be printed.

Part (g) extended the database and candidates mostly scored well in developing their work appropriately. Testing of the keyword search rarely extended to the consequences of a keyword not being found, however.

There was much less evidence this year of candidates spending unnecessary amounts of time developing their databases beyond the requirements of the question.

Task 2 (Algorithm trace)

Some candidates scored full (or close to full) marks on this question. Many of those who did not, failed because they refused to acknowledge the straightforward requirements of the question. What is more unacceptable is that far too many Centres then chose to ignore these requirements when marking. Almost inevitably this resulted in the Centre being scaled.

The quotation marks in the algorithm are there to identify a string literal and should not be part of the output. Remember, the algorithm is going to be used to create a computer program and the program should not print the quotation marks. Indeed, in the test plan the expected output should not contain these quotes. Candidates who handwrite these answers must accept the need to take the necessary care to distinguish precisely between upper and lower case letters.

There was apparent difficulty with finding suitable new paths in part (d).

Task 3 (Transferable vote system program)

This was intended to challenge the more able candidates and it did. However, it was also designed to allow less experienced programmers the opportunity to succeed in the straightforward early sections and many did.

At least the nature of the scenario prevented the vast majority of candidates from doing much more than the question required. There are always some exceptions, especially when testing takes place.

The use of annotation and meaningful names now seems well embedded in most Centres, though some still allow inappropriate annotation marks. Annotation should be part of the program not separate explanations and not added at the side using a word processor nor should it be handwritten. Remember, it should be possible to remove the code and recreate it from the annotation. Also, annotation should be before the code it is explaining, not after it.

Initialisation marks also cause problems, with very different standards being imposed (or not) from Centre to Centre. It is not sufficient to declare the variables. Visual Basic does do some initialisation but other languages do not when variables are declared. Also, if the program is put in a loop, the declarations will not be carried out again and so the variables will not be re-initialised. It is considered to be good programming practice to initialise variables at the start of a program and not rely on declarations to do this.

Markers must be persuaded not to shirk the task of being precise when placing marks and comments within programs. It is not sufficient to indicate mark points (other than general ones) at the beginning of sections of code, rather than against the exact piece of code which is being given credit. They should be reminded once more that moderators are not re-marking answers, merely moderating their award of marks.

Unit 2508

General Comments

Performance in this exam varied greatly from Centre to Centre, with some excellent answers produced by candidates. It was pleasing to see Centres using past papers and mark schemes to prepare their candidates for this examination. There was evidence to indicate that more candidates are using better examination techniques such as reading the questions carefully and taking account of the marks allocated for each question. There were some scripts which included poor handwriting making the examination process difficult.

There was evidence to indicate that candidates had sufficient time to complete the paper and there were enough spaces provided for their answers. The layout of the paper with structured questions continues to assist candidates in answering the questions.

The majority of the Specification is well understood by Centres. As the paper focuses on computer applications, candidates would be advised to refer to the stem of the question in their answers. For example in question 6 many candidates understood the terms Batch processing and Interactive processing but they could not apply their knowledge to a building society.

Comments on Individual Questions

- 1 The majority of candidates were able to achieve at least half of the available marks. In part (a) most candidates were able to state at least two methods of fact finding giving an advantage and disadvantage in each case. In part (b), it was disappointing to see candidates referring to the testing in the general sense ignoring the “role of the end-user” in their answers. In part (c), candidates were able to score well by naming and describing three methods of changeover. Some candidates were confused with pilot and phased changeover as evidenced by naming “phased” and describing pilot changeover. In part (d), the majority of candidates did not achieve three marks, as answers were often vague such as “...is the cost worth it?..”. In part (e), candidates would be advised to study the purpose of technical documentation. Too often answers focussed on the contents of Technical Documentation. It was pleasing to see the better candidates scoring well in part (f) and including terms such as corrective, adaptive and perfective maintenance in their answers.
- 2 Most candidates were able to demonstrate a good knowledge of validation methods, including the appropriate name of the validation test and a good description. Some candidates lost marks by naming the validation technique correctly but included a vague description such as “Character Type check - which is a way of checking the type of character entered”. Other candidates who lost marks referred to verification checks in their answers.
- 3 Few candidates obtained full marks in this question. Barcode was well known but the use was often vague such as “used in a supermarket”. The majority of candidates were able to refer to a microphone in their answers to capturing data using voice recognition but failed to explain what happens after this. In the touch screen, candidates were able to refer to “touching” the screen and the idea of a co-ordinate being processed. The last method of data capture was poorly answered with many candidates confusing OCR with OMR. Answers too often referred to detecting marks on a page with no reference to a character. The uses of OCR were not well known.
- 4 This question was well answered by the majority of candidates. It was pleasing to see fewer answers that referred to brand names when stating the type of software. The reasons for using word processing and databases were clearly stated in a concise manner.

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- 5 This question was well answered by many candidates, including answers with reference to the applications stated. Some candidates lost marks due to lack of detail rather than lack of knowledge. For example, some candidates understood that off-the-shelf software was cheaper than custom-written but failed to explain the concept of “shared development costs”.
- 6 This question proved to be a discriminating question. In part (a) the majority of candidates demonstrated an understanding of the terms Batch processing and Interactive processing but failed to refer to a building society in part(b). Although electricity billing is a batch processing task and booking a seat on an airline is interactive processing task they were not given credit as they are not tasks of a typical building society. Part(c) is a standard question asking candidates to name and describe three components of an expert system but too often candidates demonstrated a lack of understanding of this part of the specification. The majority of candidates were able to name and describe one of the components of an expert system. It must be stressed to candidates that a “Knowledge base” is not the same as a “database”.
- 7 The majority of candidates were only able to score two out of the six marks for this question. In part(a), candidates got confused with a GUI interface and a form driven interface by making reference to icons, menus and pointers in their answers. In part (b), candidates were often vague in stating features of a “command line interface” such as “commands are input on a line”. This rewording of a question must be discouraged.
- 8 This question was poorly answered. In part (a) and part (b) many candidates misread the question by referring to the advantages and disadvantages to the employee as opposed to the employer. “Saving money on petrol travelling to work” is not an advantage to the employer. In the same way “...having to provide an office at home” is not a disadvantage to the employer. In part(c) the weaker candidates were stating the principles of the Data Protection Act missing the question which asked for the limitations of data protection legislation.

Unit 2509

General comments

Many candidates showed a good knowledge of a considerable part of the Specification and gave excellent, detailed answers for some topics. Both they and their teachers should be proud of their achievements.

It was disappointing to find a significant number of answers that were almost illegible. Numerous candidates wasted time by failing to plan their answers: they wrote large amounts of irrelevant and repetitive material. Some candidates failed to follow instructions in the examination. For example, in Question 4, some wrote a description of how they merged the example files even though they were warned this would gain no marks.

Correct use of technical terms is essential. As in previous sessions, a significant number of candidates used the terms “instruction”, “process”, “job” and “task” interchangeably. These are all terms with specific meanings and candidates are expected to use the terms in the correct context.

Centres are reminded that a number of algorithms are listed in the Specification (see Section 5.4.4). Both using and writing algorithms are basic computing skills that candidates should learn.

Comments on Individual Questions

- 1 (a) Few realised the boot file supplies personal settings. Many gave general answers about the bootstrap process.
(b) Some good descriptions of transparency were given. Some ignored the network and described printing a document, while others wrote only about spooling and discussed speed mismatch. It was rare to find any mention of packets.
- 2 (a) Only the best candidates gave good answers. The symbol table was rarely mentioned. Some referred to tokens, though gave very little detail. The majority did not appear to understand lexical analysis and tried to remember material learnt by rote.
(b) Some good answers were given. The best candidates were able to relate this to part (a) and gave detailed answers.
- 3 (a) A significant number of candidates were unable to give clear answers. Many wrote that the current instruction’s address is held in the PC until the end of the execute phase, while others said the actual instruction is held. In (ii) many appeared to guess their answers.
(b) Though some candidates answered well, others did not read the question properly and gave irrelevant answers. Some who did not understand the topic wrote about pipelining instead of answering the question. Only the most able candidates appreciated that the array processor architecture would be of no benefit in (ii).
- 4 (a) Most candidates gained good marks here. A few did not read the question and showed the stages of sorting the words without using a binary tree.
(b) A significant number thought the structure was a stack.

In (ii), despite the example supplied, many were unable to answer correctly. Numerous answers were of the form “MyData (start):= read” and a number changed the free pointer. Most did not realise that moving the start pointer means, in effect, that the data is deleted.

There was confusion over static and dynamic data structures. The most common errors were that data cannot be changed in a static data structure and that data can be moved around within a dynamic data structure. Some vague answers were of the form “static data structures cannot change”, possibly due to careless English.

- (c) Surprisingly, many candidates gave poor answers about merging files and some were unable to complete the example in (ii). Many did not attempt the algorithm. Those who did usually gained some marks, though few produced good algorithms. Use of pointers was very poor.
- 5
- (a) Numerous candidates either did not read the stem or did not understand the term “low-level language”. Answers were very poor, with many candidates appearing to write about indexed sequential files instead of indexed addressing.
 - (b) Most answered this well, with many gaining full marks. A few wrote about the “digit 45” being too large.
- 6
- (a) Almost all candidates answered this correctly.
 - (b) Most gained marks for the data types and sizes. The addition of 10% for overheads appeared to be Centre-based. Few candidates mentioned division by 1024 to convert units. A number of candidates did not understand the units at all, giving answers using bits or dividing the number of bytes by 1000 to change to Mb.
 - (c) This was generally answered correctly.
 - (d) Answers were fairly poor, usually due to vague descriptions such as “DogNumber is a foreign key as it’s a primary key”. Some candidates appeared to state a standard definition of a foreign key but were unable to relate this to the question.
 - (e) Most had some idea about normalisation, though a considerable number failed to insert a link entity. A few inserted, incorrectly, either the Dog or the Meeting entity.
- 7
- (a) Most gave the answers, though few used correct notation.
 - (b) Explanations were quite poor, though many gave correct examples. It was clear that many candidates did not understand the vocabulary of declarative programming. Few were able to describe backtracking accurately. A common misconception was that backtracking is used to check the answer obtained.

Unit 2510

Candidates generally used Microsoft ACCESS or VBA to complete projects; on the whole, the finished systems were functional and achieved the requirements set after the initial investigation and analysis. Most centres submit excellent well organised work which has been carefully prepared and accurately marked in accordance with the published mark schemes and advice provided by OCR.

In reports to Centres on previous sessions and in individual feedback to some Centres the moderators have commented on the lenient marking in various sections as a warning to Centres that, while there is necessarily some leeway, the current standards applied were close to the point where an adjustment to the Centre's marks would become appropriate. In this session the moderation team have applied more adjustments than in previous sessions to bring Centres in line with the agreed standard.

The main reasons given for adjustments include the following;

Section a (ii)

To score well there must be excellent evidence of end user involvement but in many cases this was limited to a 'transcript' of a conversation followed by a cursory comment on the chosen solution. A full investigation will include planned interviews with subsidiary questions, reviews and more targeted questioning and data collection including any original documents. Discussion of alternative approaches was frequently too superficial and not targeted at the end user who should be using this advice to make an informed decision on how the project will proceed.

Section b (i)

There must be specific objectives listed for the solution and designs must include sufficient detail for a similarly able developer to complete the system. It is essential for the design to include consideration of necessary validation for system data.

Section c (i)

In order to score well this section must contain evidence of the system development and planned testing showing data used, reason for test, expected and actual results. Full testing must cover at least the system requirements identified in section (a) and there must be hard copy evidence to match the items included in the test plan. Implementation is frequently far too generic to score high marks and candidates need to discuss the implementation strategy for their system not simply restate the theory.

Section d

While technical documentation can include references to the design and development sections, the candidate should not assume that the moderator will simply search through the work for this evidence and there should be some useable technical documentation. User documentation must be stand-alone and for higher marks must include good on-screen instructions and help for the designed system. It is not sufficient to refer to the on-line help provided by the application in which the system is developed.

The moderation team are always grateful to those Centres who take the extra time to annotate work and while many Centres provide excellent annotation to indicate how marks have been awarded, many still provide no guidance for the moderator. While we cannot insist on annotation it helps considerably during the moderation process to identify how the teacher has allocated marks and to identify evidence to support the award of a particular mark.

Unit 2511

General Comments

There were few weak scripts but there were also few good scripts. The quality of written communication continues to decline and candidates could not always express their answers clearly, this resulted in poor marks. Candidates still fail to address the scenario when answering the questions and this also leads to a reduction in marks. There were a significant number of scripts where the writing was so untidy that deciphering it was a challenge.

There did not appear to be any problem with the time allocated for the examination and no candidate appeared to run out of time. In fact, one very good candidate wrote a letter at the end of the script explaining that there should be more to do in the time. Overall, the paper seemed to be neither too easy, nor too difficult. Whilst there were good examples of answers for each question, there were few candidates who scored highly on most questions.

It appears that the work of the borderline candidate is improving but few candidates show Grade A ability. This may be due to too much effort being put into the Project and Unit 2511 being left to the last couple of months. It should be noted that this part of the Specification is of A2 standard and requires a lot of hard work. Also, it is the synoptic paper and questions can be asked on any part of the Specification.

Comments on Individual Questions

- 1 (a) This was generally well answered, although some candidates gave vague answers such as 'To make sure the project is worthwhile.' or confused feasibility study with analysis.
 - (b) (i) Most candidates gave answers worth 2 or 3 marks, few gained full marks. This was an example of candidates not studying the contents of the Specification properly.
 - (ii) More than half the candidates could name the type of software but few could clearly describe it. Wrong answers included spreadsheets or SSADM.
 - (iii) Most candidates scored one mark but few gained full marks.
 - (c) Almost half the candidates failed to consider the scenario when answering this question. Questionnaires are not suitable when there are so few people working in this business. Also, usually, candidates gave generic reasons for their methods and did not give reasons that reflected the scenario; generic answers did not gain marks.
-
- 2 (a) This was almost universally misinterpreted, with candidates specifying how computers must be linked, rather than focussing on the design aspect.
 - (b) Hardware and OS software were not understood very well. Most candidates gained one mark for antivirus software but few got the second mark for utility software. Application software was usually well answered but there were still a number of candidates who gave the names of proprietary software and gained no marks. Most candidates gained one mark for communication requirements.
 - (c) This was poorly answered. Some candidates gained marks for 'writing code' and 'testing' but most had no idea what is done in developing the software for a system.
 - (d) Again, candidates did not consider the scenario and gave answers more suitable to large organisations.
 - (e) Most candidates gained at least two marks for corrective and adaptive maintenance. Fewer could explain perfective maintenance.

- 3 Object Oriented Programming (OOP) is still not understood even at the level of defining classes. Teachers and lecturers should be aware that the new Specification expects much more knowledge of this topic.
- (a) Very few candidates could give a satisfactory answer to this question.
 - (b)
 - (i) Encapsulation was understood by about half the candidates but few could give a suitable example. Most simply gave the name of a class.
 - (ii) The definition of a class was not well understood and very confused answers were given. Most candidates gave a correct example from the diagram.
 - (iii) Again, answers were confused and examples were poor.
 - (iv) Generally, this was better answered than previous parts although examples were not satisfactory.
 - (c)
 - (i) Most candidates gained this mark but a large number specified a software interface when the Question asked for a hardware interface.
 - (ii) This question was well answered.
 - (iii) This question was generally well answered although there were a number of answers that were too general.
 - (d) Most students gained marks for promoting the business, with many suggesting identifying trends or patterns in buying. Few gained all four marks.
- 4
- (a) Nearly all candidates gained full marks.
 - (b) Most candidates understood that a many-many relationship leads to data duplication and data inconsistency. They also understood that the E-R diagram was not in 3NF.
 - (c) Candidates still fail to put the many relationships on the link entity even though this is shown in the original diagram.
 - (d) Many candidates identified the entities correctly but were unable to give a clear reason for the need for foreign keys.
- 5
- (a) Most candidates gained at least one mark for online shopping. Many scored another for either mentioning credit cards or queries/email.
 - (b)
 - (i) Most candidates answered this correctly.
 - (ii) Hotwords – this was correctly answered by around 80% of students; the remainder thought it was something to do with searching.
Buttons – generally answered well
HTML – most scored a mark for mentioning links to other pages; many scored another mark for tags or giving an A HREF example.
- 6 This question was very well answered with most candidates gaining five or six marks.

**Advanced GCE Computing (3870/7820)
June 2007 Assessment Session**

Unit Threshold Marks

Unit		Maximum Mark	a	b	c	d	e	u
2506	Raw	90	68	60	52	45	38	0
	UMS	90	72	62	54	45	36	0
2507	Raw	120	86	73	61	49	37	0
	UMS	120	96	84	72	60	48	0
2508	Raw	90	71	63	55	47	39	0
	UMS	90	72	62	54	45	36	0
2509	Raw	90	68	62	56	50	44	0
	UMS	90	72	62	54	45	36	0
2510	Raw	120	98	87	76	65	54	0
	UMS	120	96	84	72	60	48	0
2511	Raw	90	61	55	49	43	38	0
	UMS	90	72	62	54	45	36	0

Specification Aggregation Results

Overall threshold marks in UMS (ie after conversion of raw marks to uniform marks)

	Maximum Mark	A	B	C	D	E	U
3820	300	240	210	180	150	120	0
7820	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
3820	9.3	27.3	49.3	70.9	85.3	100	1041
7820	11.1	31.3	57.6	81.3	95.7	100	605

Xxxx candidates aggregated this session

For a description of how UMS marks are calculated see;
www.ocr.org.uk/OCR/WebSite/docroot/understand/ums.jsp

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