

**GCE**

**This Examiners' report relates to mark scheme**

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**6131 Unit SN1****Examiner Report**

Maximum mark .....60

Mark range .....54-2

Mean mark.....26.9

Standard deviation.....10.2

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As in January, there were many examples of clear, critical thinking, and many candidates showed an impressive understanding of the material. A tendency to be imprecise with answers and a lack of depth was often evident, however. It seems that the balance between embracing the new approach and traditional rigour has proved difficult, and that more attention to the underlying biology would pay dividends for some candidates.

All too often not enough points were made to match the marks available, and candidates should be aware that one correct statement is unlikely to yield more than one mark. Also, not enough attention was paid to the command words of the questions, with confusion between descriptions and explanations being particularly common. The specification contains a list of such words and their meaning (pages 64-65).

**Question 1**

Most candidates scored well on parts (a) and (b), with the most common error being imprecision in identifying the side of the heart for each chamber. Full marks for part (c) were not common, with most referring to oxygenation of blood in the lungs and the idea of a second pump in the circuit. Few mentioned the pressure changes caused by capillary beds. Part (d) was usually well done.

**Question 2**

Those who knew about fatty acids found this question to be very easy. Candidates from some centres seemed completely unfamiliar with fatty acid structure, although most managed to draw a phospholipid bilayer with sufficient accuracy to gain the marks. A number of candidates drew a micelle, which gained only one of the marks.

**Question 3**

Although there were some very clear answers, most candidates were not able to explain the nature of a gene probe for part (a). A number described the methods for obtaining tissue for genetic screening in general, and some described techniques such as gel electrophoresis. Many scored both marks for part (b), usually by identifying termination of a pregnancy and preparation for an affected child as courses of action. Vague references to decisions about whether to 'keep the child' were not allowed since they were open to misinterpretation. Part (c) discriminated well, with good candidates able to explain that a normal gene introduced into embryonic cells will be expressed in all cells derived from it. Many candidates revealed limited understanding by suggesting that the CF allele needed to be replaced in cells, and there were many discussions of how therapy might eradicate CF from the entire population.

**Question 4**

Few candidates were able to identify a role in the body for cholesterol, despite being expected to know the fluid mosaic model of membrane structure. There were many very good answers to part (b), although vague references to clogged arteries and describing changed risk without explaining whether it would increase or decrease scored less well. Most candidates gained the mark for (c)(i), mostly by suggesting reduced saturated fat intake, but very few were able to select the relevant information from the passage for part (ii).

**Question 5**

Most candidates found (a) straightforward, although thymine was present in much mRNA. Part (b) was also well done, although some confused codons and anticodons. Part (c) tended to yield either full marks or none. There were many clear explanations, but the number of amino acids and the number of permutations were often confused. This was one question where clarity of expression was sometimes lacking.

The significance of the complementary pairing between codons and anticodons was often missed in (d), although the need to match the correct amino acid to a codon was usually appreciated. Part (e)(i) provided most with marks, and those who missed them were usually trying to explain rather than describe. A better understanding of how gradient is related to rate of change would have helped some, and some felt that the levels of radioactivity became constant when they are consistently decreasing at a slower rate. Weaker candidates repeated their description for part (ii), and others thought that the radiation was affecting the molecules rather than acting as a label, but many provided good answers.

**Question 6**

The mark scheme for part (a) was intended to reward general points related to experimental design for this investigation, and did not require knowledge of amylase in particular. Since this is based on a core practical, we expected many good answers, and it became clear that centres that have carried out similar investigations were well prepared. It is important to remember that details of core practicals will be examined in this way. Marks were generally lost for imprecise expression, such as describing 'amounts' of starch, rather than concentration, and the importance of controlling variables was often missed.

Part (b) also required clear explanation, and some simply resorted to rephrasing the question. The link between rate and active sites was often discussed, but without giving a full story. Part (c) was demanding, and most were able to gain no more than two marks. Where candidates realised that cellulase and amylase have different specificities they scored well. All too often the description implied that cellulase would have no effect because the enzymes were already in excess, or that cellulase cannot break down glucose.

**Question 7**

Parts (a) and (b) posed few problems. The response to part (c)(i) was very centre dependent. Part (c) (ii) most often yielded two marks because not enough points were offered. A number of candidates felt that samples of unequal size could not be compared. The response to part (d) was very pleasing, with the majority scoring full marks.

**6132 Unit SN2****Examiner Report**

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Maximum mark .....80

Mark range .....67-3

Mean mark.....33.6

Standard deviation.....13.5

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**Question 1**

Many candidates answered this question well. It assumed knowledge of the core practical activity 2.3.8 – the observation of the stages of mitosis and so it was pleasing to see that most candidates correctly identified anaphase from the micrograph and that many also scored good marks in the other parts of Q1(a). There was also good understanding of the role of DNA replication in mitosis (2.3.6). The final part of the question revealed that most candidates understand that meiosis results in a halving of chromosome numbers (2.3.5) but, in many cases, the chromosomes were drawn still as pairs of chromatids. Few therefore gained the second mark for the diagram (1c).

**Question 2**

The theme of this question was plant structure and it drew on material taken from topics 4 and 5. Most candidates scored well on 2a (2.5.2) but, although many were familiar with the words xylem and sclerenchyma, few were able to respond clearly in recognising similarities and differences (2.5.4).

Part (c) was based on the dendrochronology introduced in 2.4.3. The answer envisaged for part (c)(i) was that spring wood was made up of larger vessels than summer wood. The examiners, however, acknowledged that the diagram was potentially confusing for candidates since the stylised stippling used for summer wood consisted of larger dots than the spring wood. In the circumstances it was decided to accept reference to large or small diameter xylem vessels for the single mark. A considerable number of candidates did not refer to the rings as consisting of xylem vessels. The identification of the 2001 summer wood and the recognition that 1998 was the year in which least growth took place were well done by many candidates suggesting a good understanding of annual growth of trees and of the principles of dendrochronology. A minority of candidates was confused about the position of cork and phloem and some referred to 'winter growth'.

**Question 3**

The first part of this question was based on 2.5.3, the 'structure and function of the polysaccharides starch and cellulose' and focussed on the connection between the molecular structure of cellulose and its role in microfibrils. The responses of most candidates were disappointing, lacking in detail and confusing microfibrils and molecules, and few gained all of the four marks available for part (a). Part (b), which combined understanding of tissues, seed dispersal and the application of genetic manipulation, was generally well answered.

**Question 4**

This question was based on pollen analysis (2.4.3) and revealed a generally sound understanding of the principles of pollen analysis and climate change although a lack of depth was evident in most responses to part 4b. Most candidates suggested that oak grew better in warmer conditions than pine. Few, however, scored the second mark by discussing how a rising temperature could tip the competitive balance in favour of oak and extend its distribution northwards or considering how the study of the ecology of modern day oak and pine could be used to interpret pollen data from peat deposits. The understanding by some candidates of both stratigraphy and radiocarbon dating was rather superficial and many gained one rather than two marks for part (c).

**Question 5**

The subject matter was based on 2.3.1 and 2.3.3, and was well understood by most candidates although many lost marks by failing to express themselves clearly enough when describing a sequence of events, as in part (c)(ii). The term 'protein trafficking' was not sufficient as an answer to 5b without some explanation.

**Question 6**

Responses to this question built around the galactosidase core activity (2.3.14), were generally disappointing. Remarkably few candidates were able to explain what was meant by the word 'buffer' (Q6a).

Most were unable to explain the outcome of the experiment, in part (b), from either a theoretical or practical point of view. The knowledge of those who did often lacked the precision and coherence needed to achieve full marks.

Even more disappointing were answers to part (c) in which full marks could have been achieved using investigative skills from GCSE science involving measuring and controlling variables, replication, use of water baths and selecting an appropriate series of temperatures. There was a significant minority who performed well in this question. Variation between centres suggested that some had not undertaken this or similar laboratory enzyme experiments. Centres are advised that core activities (underlined in the specification) should be regarded as content, knowledge of which can be tested on the written paper.

**Question 7**

There were many good answers to part (a).

Part (b) carried 5 marks and placed candidates in a situation where they were required to apply scientific knowledge in an unfamiliar ethical context, a skill which can be developed by role-play, class discussion or debate. Developing the skill of preparing a written argument is also important to perform well on the written papers. Many candidates realised the substance of the argument but lost marks through not expressing themselves explicitly enough. Realising that the source of the stem cells would be human embryos was an important part of the argument, from which the observation that some people regard such embryos as ethically human follows. An alternative point could be that such is the suffering of a person with spinal injuries that it is not only acceptable to use human stem cells but ethically unacceptable not to do.



**Question 8**

This was built around identifying trends from graphs (2.4.3), mathematical models (2.4.12) and the carbon cycle (2.4.10). Responses to part (a) were disappointing since the mathematical skills required should not have been too demanding to an AS Biology candidate. One satisfactory approach was to draw a line of best fit, calculate the gradient and express the result on an annual basis. Alternative answers involving accurate and appropriate readings from peaks on the graph followed by suitable calculation could also achieve full marks. The question required candidates to 'show your working'. The presentation of an answer in the appropriate range but lacking an adequate indication of how the figure was arrived at did not achieve more than one mark.

Part (b) explored the carbon cycle 'in regulating atmospheric carbon dioxide levels' (2.4.10) and revealed that many candidates did not appreciate the importance of the carbon cycle in the context of global warming issues and in dealing with the concept of 'carbon sink'. Many stated that carbon dioxide was absorbed from the air and used in photosynthesis but few went on to say that the carbon dioxide was converted into biomass or wood and that this was the 'carbon sink'. Few stated that the trees acted as a sink because uptake due photosynthesis exceeded release through respiration.

Answers to part (c) were also disappointing. There was a mark available for simply observing that the organic matter disappeared due to the processes of decay. Another two marks could have been gained by noting that 'increased temperature' and 'increased enzyme activity' (2.4.6) would accelerate decay. Most candidates did not operate at this level, gaining a single mark for making an observation about deforestation. Many thought that the loss of soil organic matter was the result of humans exploiting it as fossil fuel.

Part (c) presents an example of a 'levelled' mark scheme. There are several alternative answers but to obtain a second mark the point has to be developed in depth. In this question there are only two levels of response to allow for the innovative nature of this approach but in future it is intended that there could be three or more levels of response. In this examination the responses of most candidates were superficial and only a few gained more than one mark.

**Question 9**

Many candidates scored well and showed a good knowledge of 2.3.17 and 2.5.8.

In part (b) only a few candidates stated that lung tissue has a high rate of cell division making it susceptible to cancer development. Many mentioned that cancer could be caused by genes but only a few described this as a question of genetic susceptibility.

In part (c) many candidates did not adopt a sufficiently comparative approach when dealing with William Withering and modern methods.



**6133 Unit SN3 Visit/Issue Report****Examiner Report**

Maximum mark .....20

Mark range .....20-0

Mean mark.....10.8

Standard deviation.....4.0

This component of Unit 3 was designed to bring the students into contact with 'real life' Biology and to get them thinking about biological science outside the confines of the classroom. It also provides an excellent opportunity for students to use their Key Skills of Communication, Numeracy and ICT.

The criteria in the specification were used to mark the reports. Although originally intended to be a hierarchical system it was decided at the examiners' standardisation meeting to use it as a simple mark scheme.

**Types of reports**

Out of a random sample of nearly 200, 68% were Issue reports and only 32% were Visit reports. The topics chosen by the candidates were as follows:

<b>Issue Topic</b>	<b>%</b>
Gene therapy	34
Global Warming	26
Blood transfusion	7
Coronary Heart Disease	4
Conservation	3
Smoking	3
Cystic Fibrosis	2
Obesity	2
GM crops	2
Others (including SARS, IVF, HIV, Bananas, Malaria, Greyhounds, Polio, Iguanas, Gorillas, Sleep, DNA fingerprinting, CJD, Island Ecosystems, Cancer, Dinosaurs and Conservation.	17

<b>Visit Report</b>	<b>%</b>
Cider factory	22
Zoos	16
Kew Gardens	17
Nature Reserves	9
Horticultural Research Centre	7
Brewery	7
Eden project	4
Others (including Hospitals, Natural History Museum, Supermarkets and Millennium Seed Bank)	18

Although there were a wide variety of topics chosen for either Issue or Visit, it is perhaps disappointing that more schools did not take advantage of the opportunity to study Biology in Action 'outside the classroom'. Despite obvious logistical difficulties the Visit still remains a unique chance to look at the relevance of Biology in the world outside school and perhaps provides the better opportunity to examine the methods and techniques employed by Biologists in the world of work. The evidence below also suggests that these Visit opportunities result in the students scoring more highly.

Of the Issue reports, it was disappointing that many were very similar to the materials in the Students' texts, eg Gene Therapy and Global warming and in a significant number, the SNAB texts proved to be the only reference. These somewhat unoriginal choices and approaches for Unit 3 were quite common and do not really represent the true spirit of the Salter's Nuffield approach to Biology. Indeed, many of them seemed just like another piece of homework rather than an interesting piece of coursework.

### Marks awarded

The same random sample of scripts showed that the Visit reports were done better than the Issue reports with a mean mark of 10.9 out of 20 compared to 8.4 (standard deviation 2.7 in each case). The distribution of marks for the various criteria is shown below and perhaps gives some explanation for the better performance of the Visit reports.

Criteria	Issue (% of total)	Visit (% of total)	Difference
<b>Aa</b>	54	64	10
<b>Ab</b>	42	57	15
<b>Ba</b>	38	58	20
<b>Bb</b>	43	52	9
<b>Bc</b>	39	75	36
<b>Ca</b>	32	60	28
<b>Cb</b>	52	68	16

### A. – Purpose of Visit or Significance of Issue

The data above show that the Visit reports scored slightly better than for the Issue reports possibly because the Visit often meant a tour, a talk or the students asking questions, making it easier to identify the whole point of the biology taking place. This is clearly reflected in the scores for Ab. Nevertheless, it was very rare to find a piece of work with a thorough explanation of the ethical or social implications of both biological aspects although there was evidence that many students were very conscious of the importance of this section of the report.

In general however, many students (23%) failed to clearly identify the two aspects of biological interest that they were looking at and as a result scored zero for Aa.

**B. – Biological principles**

Again, the sample of Visit reports scored more highly, particularly for Ba and Bc. This is not surprising since it will be much easier to discuss methods and limitations for a visit where the students are actually observing the location and perhaps asking questions about what the scientists actually do or what difficulties they encounter.

Certainly, the candidates scoring maximum marks for Ba tended to be Visit reports and here they had to not only produce some quantitative examples but they also had to comment on them critically. This would be easier for a visit report where some data were obtained and then perhaps compared with similar establishments elsewhere in the UK or the rest of the world. Interestingly, there was little difference between Visit or Issue report for Bb and this was the least well done aspect for the Visit report. It seems to suggest that the candidates that went on a visit concentrated too much on the methods and techniques employed without also looking into the actual biology involved. It was also rare to find a maximum score for Bc indicating that many students found it especially difficult to speculate on future developments in any detail. In fact, very few students tended to put in their own personal feelings for this section or any other part of the report.

Another problem was that many candidates did not make it at all obvious which aspect of biological interest they were concentrating on for part B. This made it difficult for examiners although we instinctively tended to look for the one that described some semblance of method, ie what do the biologists actually do.

**C. – Communication**

The biggest difference was for Ca where far more Visit reports were written for a clearly defined audience. Some excellent examples of magazine or newspaper styles were produced using either Word or Microsoft Publisher. However, 30% of students failed to identify a target audience and as a result scored zero for Ca. In fact 9% of candidates not only failed to identify an audience but also failed to identify the two biological aspects for Aa and as a result lost 4 marks. Of the audiences identified, some were rather weak or vague eg 'people', 'my teacher' or 'people who might get this disease'.

In addition, a few candidates only added up the words they'd written and did not include words included in a downloaded diagram. This then put some candidates well over the 1500 limit although, in general the word limit did not seem a particular problem. Some of the best reports were well within the limit. Some candidates did not include a bibliography and sometimes the headings for Ca were not always relevant to what was then talked about. A surprising number contained frequent spelling or grammatical errors.

**General**

Overall, it did seem that a well handled Visit gave the candidates the best chance for producing a well focussed write up and indeed, those students who had visited a site of interest tended to write livelier and more personal reports suggesting that they had enjoyed this approach more. Some excellent and most original work was produced, in particular, one interesting piece of work on Bananas.

However, there were signs that some reports seemed to have simply 'lifted' pieces of background information without actually commenting on it and in consequence did not appear particularly original pieces of work. One candidate for example simply copied all of the text from a website. In addition, it was common to see candidates fail to identify both a target audience and aspects of Biology for Aa, effectively losing 4 marks. This area of the reports could easily be improved in the future.

One excellent feature of almost all reports was the expertise in the use of ICT, not only in using the Internet effectively but also in displaying the data and presenting their findings and ideas. Despite some teething problems, this still remains a potentially motivating part of the syllabus encouraging the students to think critically and actually enjoy the Biology involved.

**6133 Unit SN3 Practical Review****Examiner Report**

Maximum mark .....20

Mark range .....20-0

Mean mark.....8.4

Standard deviation.....3.3

The examiners were disappointed with the performance of many candidates on this paper, especially given that candidates had a week to prepare their answers and to choose the appropriate practicals to exemplify them. It is hoped that future candidates will be better prepared.

**Question 1**

Very few candidates scored more than one mark for part (a). The main problem was the confusion of the terms dependent and independent variable, and reliability and accuracy. Frequently answers were solely concerned with controlling variables.

Many candidates scored no marks for part (b). Only a few candidates understood the term pre-treatment and discussed details of practical procedure. Many candidates used anthropomorphisms when referring to *Daphnia* being 'stressed' or 'happy'. Candidates from a small number of centres were able to pinpoint the need for pre-treatment to ensure similar responses or reactions from different individuals.

**Question 2**

This question was generally well answered.

Many candidates achieved full marks on part (a). Those who did not either failed to give reasons for the use of equipment or techniques, or selected a practical that was inappropriate.

In part (b), as in part (a), many candidates confused reliability with accuracy. Most responses offered little more than the repetition of the experiment.

In part (c) most candidates correctly identified an uncontrolled variable, but fewer were able to score a second mark by explaining how this would have affected their actual results.

**Question 3**

Overall this question was poorly answered. Most candidates did not score more than two marks out of seven available.

In part (a) most candidates did not explain why the tables or graphs they had constructed were appropriate. Discussion of types of data (continuous or discontinuous) was rare, as were references to scaling or the reasons for plotting rates or percentages as the dependent variables. Most candidates managed to score one mark for stating that graphs allow the trends in data or anomalies to be clearly identified.

Many candidates failed to score any marks in part (b). It was clear that many candidates did not understand the terms 'degree of error' and 'significance', and described sources of error only.

There was some evidence that some centres had covered statistical tests, although this is not on the specification and is not required to gain full marks on this question.

The main points which would have helped candidates to score higher marks were:

- Becoming familiar with the terms used in the 'Experimental and Investigative Assessment Objectives' on pages 30-31 of the specification. Candidates are expected to understand the meaning of the following terms and to be able to provide examples of them from their practical work over the AS course. *Validity, accuracy, reliability, precision, hypothesis, dependent variable, independent variable, systematic error, random error, significance, degree of error.*
- Becoming more familiar with the common forms of data presentation (graphs and tables) and their application (as in the IOB document: *Biological Nomenclature – Standard terms and expression used in the teaching of biology*, 3<sup>rd</sup> edition, 2000, Institute of Biology, ISBN: 0900490365).

#### **Comments on administrative matters**

It would be helpful if centres ensured that the practical investigations and authentication certificate were attached by a treasury tag to the back of the answer booklet, and that plastic sleeves were not used.



## UNIT GRADE BOUNDARIES AND UNIFORM MARKS

The raw mark obtained in each unit is converted into a standardised mark on a uniform mark scale, and the uniform marks are then aggregated into a total for the subject. Details of the method of aggregation are given in Appendix A.

For the AS examinations Units 1 and 3 have a weighting of 30% and Unit 2 has a weighting of 40%, and the maximum raw marks and maximum UMS marks are shown in the table below.

Unit code	Maximum raw marks	Maximum UMS marks
6131	60	90
6132	80	120
6133	40	90

For the A level, Units 1, 3, 4 and 6 have a weighting of 15% and Units 2 and 5 have a weighting of 20%, and the maximum raw marks and maximum UMS marks for the A2 units are shown below.

Unit code	Maximum raw marks	Maximum UMS marks
6134	60	90
6135	80	120
6136	60	90

The table on the next page shows the boundaries at which raw marks were converted into uniform marks in this examination. The A and E grade boundaries are determined by inspection of the quality of the candidates' work. The other grade boundaries are determined by dividing the range of marks between A and E. Marks within each grade are scaled appropriately within the equivalent range of uniform marks.

In Unit 3 the A and E boundaries are determined separately on the two components of the unit, paper 01 (visit or issue report) and paper 02 (practical work review). These marks are then added together to find the A and E boundaries for the unit as a whole, and the other grade boundaries for the Unit are then found as described above. Boundaries for the B, C and D grades for each component can be calculated in the same way, but please note that these are **not** simply added together to obtain the B, C and D boundaries for the unit as a whole.

**Unit grade boundaries**

Please refer to the notes on the previous page.

Unit	Maximum mark	Grade				
		A	B	C	D	E
6131 Unit SN1	<i>Uniform marks</i>					
	90	72	63	54	45	36
6133 Unit SN3	<i>Raw marks</i>					
	60	37	32	27	23	19
6133 Unit SN3						
	40	27	23	19	15	12
	<i>Paper 01 Visit/Issue Report</i>	20	15	12	10	8
	<i>Paper 02 Practical Review</i>	20	12	10	8	7

Unit	Maximum mark	Grade				
		A	B	C	D	E
6132 Unit SN2	<i>Uniform marks</i>					
	120	96	84	72	60	48
6132 Unit SN2	<i>Raw marks</i>					
	80	46	40	34	28	23

## PROVISIONAL STATISTICS

The provisional percentages of candidates obtaining at least the indicated grade are given below.

Unit	Entry	Cumulative percentage of candidates				
		A	B	C	D	E
6131 Unit SN1	863	18.0	31.7	47.5	63.0	77.0
6132 Unit SN2	1321	21.2	33.5	48.5	62.8	76.0
6133 Unit SN3	1314	11.0	28.4	53.2	77.9	90.2

AS cash in	Entry	A	B	C	D	E
8048	1050	13.4	29.4	47.4	67.3	83.5

## APPENDIX A

### The Uniform Mark System for AS and A level Unit Schemes

The result for each unit will be issued as a standardised mark on a uniform mark scale. AS subjects have a total of 300 uniform marks and A level subjects have a total of 600 uniform marks.

Tables 1 and 2 show the numbers of uniform marks required to gain each subject grade in AS and A level examinations. They also indicate the number of uniform marks in units with various weightings that will aggregate into the appropriate subject grade. These provide a guide to the level of performance in each unit.

The uniform marks shown for each unit do not necessarily represent the actual mark range used for marking the module. Grade boundaries for units are set at Awarding meetings on the basis of candidate performance on the actual mark range used. These boundaries are then converted to the uniform marks shown in the tables, with intermediate values calculated accordingly.

**Table 1 – Advanced Subsidiary Subjects**

Subject		Unit Weighting					
Grade	UM	20%	30%	33 $\frac{1}{3}$ %	40%	50%	60%
Max mark	<b>300</b>	60	<b>90</b>	100	<b>120</b>	150	180
A	<b>240</b>	48	<b>72</b>	80	<b>96</b>	120	144
B	<b>210</b>	42	<b>63</b>	70	<b>84</b>	105	126
C	<b>180</b>	36	<b>54</b>	60	<b>72</b>	90	108
D	<b>150</b>	30	<b>45</b>	50	<b>60</b>	75	90
E	<b>120</b>	24	<b>36</b>	40	<b>48</b>	60	72

For example, a candidate for AS Salters-Nuffield Biology must take three units, Unit 1 and Unit 3 are weighted at 30% and Unit 2 is weighted at 40%

	Uniform mark obtained	Approximate level of performance
Unit 1	65	B
Unit 2	73	C
Unit 3	80	A
<b>Subject Total</b>	<b>218</b>	<b>Subject Grade = B</b>

Table 2 – Advanced Level Subjects

Subject		Unit Weighting				
Grade	UM	15%	16 <sup>2</sup> / <sub>3</sub> %	20%	25%	30%
Max mark	<b>600</b>	<b>90</b>	100	<b>120</b>	150	180
A	<b>480</b>	<b>72</b>	80	<b>96</b>	120	144
B	<b>420</b>	<b>63</b>	70	<b>84</b>	105	126
C	<b>360</b>	<b>54</b>	60	<b>72</b>	90	108
D	<b>300</b>	<b>45</b>	50	<b>60</b>	75	90
E	<b>240</b>	<b>36</b>	40	<b>48</b>	60	72

For example, a candidate for A level Salters-Nuffield Biology must take six units, Units 1, 3, 4 and 6 are weighted at 15% and Units 2 and 5 are weighted at 20%. The candidate in this example has four units in the bank.

	Uniform Mark Obtained	Approximate level of performance
Unit 1	59	C
Unit 2	73	C
Unit 3	69	B
Unit 4	82	A
Unit 5	*	
Unit 6	*	
<b>Partial Total in Bank = 283</b>		

The candidate already has 283 uniform marks in the bank. If a Grade B is required in the subject, the candidate must obtain at least 137 marks from the remaining two (e.g. 70+67) in order to gain the minimum uniform mark of 420 for a Grade B (283 + 137 = 420).

There is no rule requiring candidates to take units amounting to 30% of the examination at the time of cashing in, nor do candidates have to take all papers with synoptic assessment at the same time at their first cash in.

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