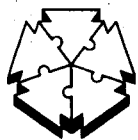




GCSE

Biology

Session: 1994 June
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MEG

MIDLAND EXAMINING GROUP

**GENERAL CERTIFICATE OF
SECONDARY EDUCATION**

**Report on the Examination
in**

**SCIENCE:
BIOLOGY**

Syllabus Code 1325

SUMMER 1994

SCIENCE : BIOLOGY
(Syllabus Code: 1325)

GENERAL INTRODUCTION

The percentage of candidates awarded each grade was as follows:

	A*	A	B	C	D	E	F	G	U
Percentage in Grade	7.2	20.7	26.3	24.1	11.7	6.3	2.4	0.9	0.4
Cumulative Percentage in Grade	7.2	28.0	54.3	78.3	90.0	96.3	98.7	99.6	100

These statistics are correct at the time of publication.

The total entry for the examination was 19211 candidates of whom 1482 were entered for the Basic Scheme and 17729 were entered for the Extended Scheme.

PAPER 1

Forty four of the questions were answered correctly by 50% or more of the candidates. 93% of those candidates who entered, correctly answered 25 or more of the 50 items on this Paper.

The correct response to each item was as follows:

Item	Correct Response	% Correct	Item	Correct Response	% Correct	Item	Correct Response	% Correct
1	D	99	18	D	48	35	C	60
2	D	89	19	B	49	36	E	71
3	C	83	20	E	83	37	A	46
4	C	73	21	E	87	38	C	78
5	A	65	22	C	72	39	B	49
6	E	99	23	E	72	40	B	78
7	E	96	24	A	76	41	B	35
8	D	90	25	B	96	42	C	83
9	D	87	26	B	88	43	B	88
10	B	59	27	C	77	44	E	78
11	B	94	28	E	60	45	C	85
12	D	85	29	B	80	46	E	65
13	C	74	30	C	69	47	B	78
14	A	71	31	A	73	48	D	52
15	A	66	32	C	58	49	D	69
16	E	96	33	A	56	50	C	50
17	B	85	34	E	66			

PAPER 2

This component was intended for candidates of middle and low ability. It consisted of two sections, in which all questions were compulsory. Section A consisted of questions assessing Objective A. Section B consisted of questions, covering mainly Objective B including the assessment of data interpretation.

The facility level of this paper was about right. It discriminated effectively between candidates of differing abilities with the exception of one question, question 9, but at the same time was accessible to candidates of lower ability. The spread of marks was from 0 to 121 with a standard deviation of 17. The paper seemed to be slightly more difficult when compared to those of the previous two years but there was strong feeling within the Examiners that, as in June 1993, the cohort continued to show a greater proportion of those candidates for whom grades C, B and A were realistic expectations. The mean mark was 79 compared with 88 in 1993 and 83 in 1992. The majority of the candidates were fully occupied for the duration of the examination. Examiners reported some evidence of time being a significant factor in the inability of some candidates to finish the paper. There were no general misinterpretations of the rubric.

Questions generally answered particularly well included:

- 1 features of fish, birds and mammals;
- 2 (a) cell identified with appropriate features;
(b) many good descriptions with iodine and colour change especially well known;
- 4 most candidates scored well notably in parts (a), (d) and (e);
- 7 the data was handled well and the mathematical calculations well done including use of units;
- 10 graphs almost universally completed accurately, question as a whole normally well answered.

Questions which were generally answered badly included:

- 3 (b) very few candidates included 'nerve impulses' in their descriptions;
- 5 (b) answers often not related to variation;
(c) poorly answered with many references to insects acting as runners;
- 9 many candidates did not read the stem of the question and as a result wrote an essay on placental exchange without referring to the detail in the diagram and in doing so failed to extract and translate the information accurately;
- 11 many difficulties in interpreting the graph, working out the time scale;
(a) many gave 'A' or 'B' instead of 'AB' or 'BC';
- 12 (a) a surprising number of candidates had the answers to (i) and (ii) reversed, and the explanation for the 'protein' data was often incorrect.

Common errors or misconceptions made by:

(a) high ability candidates included:

- 3 (b) failure to include 'nerve impulse' in explanation;
- 9 many wrote generally about the diagram and processes without using the information precisely.

(b) middle ability candidates included:

- 3(a)(iii) ligament or cartilage were often given as alternatives to tendon;
- 6 (b) words given in the stem of the question were often randomly used without making any real sense;
- 8 (a) many food webs either omitted the arrows or reversed them;
- 9 as for high ability candidates.

Questions set in such a way that they may have proved unfair for any particular group of candidates:

- 9 too many candidates did not understand that in this Section B question they were expected to translate accurately the information given in the diagram into continuous prose without recall of additional or alternative information and higher ability candidates, who were more likely to use their own words in their descriptions, may have been penalised.

General points raised by the Examiners:

Question 9 probably failed to achieve satisfactory discrimination.

There appeared to be some evidence that a significant number of candidates failed to complete the paper due to lack of time. Excessive time may well have been spent on earlier questions in particular 4, 6(b), 8(b) and 9 which often produced very involved and detailed answers. There were far more opportunities to make 'longer' more open-ended answers than in previous years. However many elaborated considerably on what could have been more concisely answered.

The phrasing of some questions was considered to be difficult for the less able candidate but the feeling was that the cohort seemed generally more able than of previous years.

In previous years the majority of candidates generally scored higher marks on Section B than on Section A. This was not the case this year suggesting perhaps that Section B was more demanding.

There were no common misinterpretations of the rubric.

This section should be read in conjunction with the published marking scheme.

Section A

Question 1 (Assessment objectives covered: A1, A2, A1)

The main features expected were those specified in the syllabus.

However, it proved necessary to extend the mark scheme to accommodate a much wider range of answers. The principle adopted was that the feature should be true for all organisms of the type specified.

- (a) and (b) cell wall and no nucleus were the commonest acceptable answers and single celled or microscopic or single strand of nucleic acid give some idea of the alternatives which were accepted.
- (c) Most candidates were able to provide 'fungus' or a named example here.
- (d) No chlorophyll was the most common answer, but possession of a cell wall or any reference to spores or related structures was accepted.
- (e) - (j) Any chordate feature true for all for each 'organism' was accepted with the following as the expected answers: (e) and (f) scales or gills or fins, (g) and (h) feathers or wings or hard-shelled egg, (i) and (j) hair or mammary glands.

Question 2 (Assessment objectives covered: A2, A2, A1, A3)

- (a) (i) The majority gave 'A' as the correct answer.
- (ii) Most candidates could provide two correct responses.
- (iii) Of the two A was the least well answered. Palisade or mesophyll were accepted, leaf and plant were not. For B credit was gained for nerve, neurone or motor neurone but not for sensory neurone.
- (b) Most candidates scored at least two marks here for recalling the use of iodine as the test solution and that it went blue-black in the presence of starch. The mark scheme also rewarded reference to putting the leaf into boiling water, use of warm alcohol, a safety point, back into water or rinsing and the use and expected result with iodine. Any five of these were acceptable.

Question 3 (Assessment objectives covered: A1, A1, A1, A2, A2)

- (a) (i) Only about two thirds of the cohort got it right with hinge as the most common wrong answer.
- (ii) Most could offer 'humerus' and 'radius' here.
- (iii) Inevitably about 50% put ligament not tendon.
- (iv) This was answered well with hinge, one plane only, up and down as acceptable alternatives.

- (b) Very few (approximately 1%) mentioned 'nerve impulse' but the other four marking points were usually gained.

Question 4 (Assessment objectives covered: A2)

Most candidates scored well here. Examiners awarded two marks for an appropriate comparative or to award one for each of two independent statements. The general principles looked for were:

- (a) organic cheaper;
- (b) inorganic easier to spread;
- (c) organic effect lasts longer or slower release of nutrients;
- (d) organic less damaging to soil structure;
- (e) organic very little risk compared to inorganic.

Question 5 (Assessment objectives covered: A2, A2, A2)

- (a) Usually scored both marks.
- (b) This section was usually answered well unless the link with (a) (ii) was missed.
- (c) The idea of a runner was often misunderstood. Something running from plant to plant was common. Others referred to pollen and stigmas. Many answers indicate that perhaps this section of the syllabus is infrequently visited. Candidates were expected to make reference to the plant putting out side branches/stems/stalks/shoots along the ground, new plant grows/puts down roots, parent plant supports new plant, connections broken/new plant independent. Labelled/annotated diagrams were accepted as an alternative way of answering the question.

Question 6 (Assessment objectives covered: A2, A2)

- (a) (i) Usually well answered. Candidates were expected to offer three different examples from climate adapted, longer shelf life, disease resistant, higher yield/faster growth, attractive appearance/better taste/ quality. Only one of each type was allowed.
- (ii) Most were able to score two marks here. The answer was expected to include reference to two of the following: select desired character, breed from that type of parent and select for same characteristic in offspring.
- (b) Considering the number of times this question has been set it is surprising how many candidates still have difficulty sorting it out. Some valiant attempts to work in all the suggested words were made but competition was often inter specific rather than intraspecific. Much fine judgement had to be applied to decide whether the terms were used correctly.

Section B

Question 7 (Assessment objectives covered: B1.1, B2.3, B2.3, B2.2, B2.2, B2.3)

- (a) The majority could locate the required '8400'.
- (b) This was answered well with '10' being the commonest error.
- (c) Many got this right with the only error being the omission of units.
- (d) (i) Most candidates gave 'Food 1' as their answer and the majority of those could justify it with phrases stating or implying that it contained the most energy.
- (d) (ii) The commonest error here was to forget to multiply by 100. 497.37, 497.4, 497 or 500 grams were all accepted as were correctly calculated values if foods 2, 3 or 4 had been given for (d) (i). Units were essential for full marks.
- (e) As for (d) (ii) one mark was given for the method and one for the answer. Since the units were stated in the stem of this question, units were not essential in the answer but if given had to be 'joules'. The expected answer was 756. The commonest errors were either to forget to divide by 2 or to divide by 2 twice.

Question 8 (Assessment objectives covered: B1.2, B2.1)

- (a) Most candidates dealt with this successfully with the commonest errors being the omission of plants, and arrows in the wrong direction.
- (b) This was well answered and at the same time a good discriminator. Common omissions were 'population decline' and 'reduced food availability'. Candidates were expected to include four of the following seven ideas: DDT passed along the food chain/suitable alternative words, concentration increases as the food chain is ascended/builds up in the body, because it cannot be excreted/remains active for a long time, may reach lethal dose/kills organism, reduced food availability, may reduce breeding capacity/affects egg production, population declines as a result.

Question 9 (Assessment objectives covered: B1.2)

This question was included in the paper in order to address an area not frequently assessed and to test a specific assessment objective. In the event it did not work. The problem of standardisation was considerable and the outcome was a question which did not discriminate, there being little correlation with ability. Very few scored full marks. This was taken into account at the grade award meeting.

Candidates were expected simply to take information from Fig. 3 and translate it into continuous prose with each of the eight 'areas of labelling' scoring one mark up to a maximum of six for the question.

Question 10 (Assessment objectives covered: B1.2, B1.3, B2.1, B1.1, B2.1)

- (a) (i) The accuracy with which these data were plotted was good with only about 1% incorrect.
- (ii) Most candidates could correctly provide two from the following three: methane, nitrous oxide and carbon dioxide. The commonest error was to offer one only despite there being two marks for the section. Perhaps examination technique was at fault here.
- (iii) Most of the candidates had the ideas but had difficulty in expressing them well. Expected answers or suitable alternative words for them included:
1. conventional energy/electricity generation 'burns' fossil fuel, less fuel burnt, lowers carbon dioxide release;
 2. maintaining temperature uses energy/fuel, insulation reduces fuel use, less carbon dioxide produced; OR insulation maintains temperature, less CFC's for air conditioning;
 3. plants absorb carbon dioxide, more trees will reduce atmospheric carbon dioxide as a result of increased photosynthesis.
- (b) (i) Units were essential here with the mark being gained for 70 ppm.
- (ii) This was well answered by the majority of candidates with reference to population increase or industrial expansion, increased destruction of forests and greater consumption of fuels/any named use.

Question 11 (Assessment objectives covered: B1.3, B1.3, B1.3, B2.1, B1.3, B2.1, B1.1, B2.3)

- (a) and (b) The expected answers were 'AB' and 'BC' respectively with 'A' and 'B' as the commonest errors.
- (c) This was answered well with some extremely good explanations. Most gained some of the marks on offer. The marks were awarded for: a time within the range 07.12 to 07.30/'just before 7.30', photosynthesis uses carbon dioxide, less carbon dioxide released from 07.30/more carbon dioxide used from 07.30, photosynthesis requires light.
- (d) The majority of the candidates got this right with 10.30 but some had difficulty with the time scale. The correct time was usually followed by some statement to the effect that at that time carbon dioxide release equals carbon dioxide uptake/no carbon dioxide exchange with the atmosphere and scored the second mark.
- (e) Most candidates correctly located a value of 'one'.
- (f) This discriminated well with only a few thinking that respiration ceases when photosynthesis begins. Marks were awarded for: four units, two from respiratory release and two from uptake.

Question 12 (Assessment objectives covered: B1.3, B1.3, B2.1, B1.1, B2.3, B2.1)

- (a) (i) and (ii) Correct answers were reversed more often than expected. Candidates should be discouraged from 'hedging their bets'. In both (i) and (ii) the first two substances offered were marked and 1 mark was deducted for three or more answers. In this type of question the Examiner should not be put in the position of choosing the correct answers. The answers expected were for (i) urea and salts and for (ii) glucose and amino acids.
- (iii) The response to this was disappointing. The majority did not appear to appreciate that proteins do not pass into the kidney tubules/proteins too large/protein not normally filtered/ stays in blood stream. The commonest errors which showed some thought suggested that the proteins were broken down into amino acids by the kidney or that the proteins were 'used up by the kidney'.
- (b) (i) and (ii) These were well answered with 13, 23 and 8 as the expected responses.
- (iii) The vast majority gave correctly B/kangaroo rat/desert rat as their answer but only about half of those could offer an explanation based on the fact that water from the food intake of that type of rat exceeded water loss.

PAPER 3

This paper was designed to provide discrimination between candidates of higher ability and grades A*, A and B were awarded on this part of the examination.

The paper was more demanding than that of last year. This was particularly true of Section B where candidates had to work very hard in order to score marks in excess of 15 out of 20 for each question. Few candidates scored more than 75 marks out of 84. Several Examiners expressed surprise at the number of obviously weak candidates entered for the paper and who scored less than 20 marks. All the questions discriminated between candidates of differing abilities. Section A especially provided a good range of differentiated tasks so that most candidates were at least able to attempt all of the questions.

The spread of marks ranged from 0-77 with a standard deviation of 12. The mean mark was 43 compared with 46 and 42 in the previous two years.

The Examiners considered the paper to be of an appropriate standard, well-balanced and generally fair to candidates. There were hardly any comments about spelling, punctuation and grammar but many references to the illegibility of the handwriting of some candidates. However, in general, the work was presented to a reasonable standard.

Few candidates failed to complete the paper and very few infringed the rubric by answering wrong combinations of questions in Section B.

In Section B the combinations of questions 4 and 7 and 5 and 7 were easily the most popular. Question 6 was rarely attempted although good marks were often obtained. It was easier to obtain marks on 4(a) than 5(a) but this was balanced by the fact that 5 (c) tended to score highly. The manner in which questions were set in Section B made it even more important than usual to read the question carefully. There is no doubt that many marks were lost by candidates not properly analysing what the question was about and by making inappropriate responses.

Questions generally answered well included 1(a), (b), (e) and (f), (water absorption and transpiration), 2 (biotechnology and conservation), 3 (a) (graphical work and interpretation), 4(a) and 4(c) (heart and circulation), 5 (c) (pollution), 6 (a) (keys), 7 (a) (photosynthesis and respiration).

Questions which proved difficult included 1(c) (transpiration pull), 2(a) (ii) (5 types of micro-organism not 3), 3(b) (genetics), 4(b) (coronary heart attack), 5(b) (decomposition and nitrogen fixation), 6(b) and (c) and 7(b) and (c) where the quality of experimental design left much to be desired.

Detailed comments on each of the questions is given below. The assessment objectives are listed in the order of their appearance in the questions.

This section should be read in conjunction with the published marking scheme.

SECTION A

Question 1 (Assessment Objectives covered: B2.3, B2.1, A2)

- (a) and (b) The calculations were usually well done. Most candidates realised that the loss of mass due to water loss was arrived at by subtracting 210 from 220 = 10g. Fewer candidates were aware that 100 - 88 gave the **volume** of water absorbed and that since $1 \text{ cm}^3 = 1\text{g}$, the mass absorbed was 12g.
- (c) Only the more able candidates were able to establish cause and effect adequately i.e. transpiration leading to forces which result in a suction effect on the water columns in the xylem, eventually resulting in water uptake by the roots. Osmosis was often mentioned but in the wrong context.
- (d) Often well answered with reference to water being used for photosynthesis, metabolic activity or to increase turgor.
- (e) Many answers referred to the loss of water being dependent on specific weather conditions but failed to mention transpiration by name.
- (f) There were many good answers using the terms 'turgor' and 'wilting'. References to plants becoming 'limp' or 'withered' were unacceptable.

Question 2 (Assessment Objectives covered: B1.1, B1.2, A2, B2.2)

- (a) (i) Few problems were encountered here where almost all candidates identified methane and carbon dioxide.
- (ii) Many candidates incorrectly wrote '3'.
- (iii) There were many good answers with reference to the gas collector storing biogas, the valve allowing entry into the outlet pipe, the tap being opened to deliver the gas and the stirrer mixing microbes, dung and water together. There were many fewer references to the slurry vessel being the reaction vessel or the water jacket keeping the vessel airtight/allowing flotation of the gas collector.

- (b) (i) Most candidates assumed wrongly that 15° C was the 'best' or 'optimum' temperature for micro-organism activity. Several answers failed to mention either micro-organisms or enzymes.
- (ii) Many answers showed an understanding that anaerobic conditions would have to be preserved to ensure that biogas would be produced.
- (iii) Several answers referred to temperature or made vague references to impurities. pH was often correctly identified as was type of dung/water content of dung.
- (c) There were many plausible and well-argued descriptions of how biogas helps to conserve habitats or resources. The most common was linking renewable with non-renewable resources.

Question 3 (Assessment Objectives covered: B1.2, B1.3, A2, B1.1)

- (a) Graphical work was usually good and well presented. There were a few instances of axes the wrong way round and of incorrect scales. Some candidates went for the line of best fit despite being instructed to join the points with straight lines. The main problem was that many graphs did not show the time spans of carbohydrate starvation/high carbohydrate diet. Most candidates could predict the glycogen level (4g/kg) but sometimes the units were omitted.
- (iii) The conversion of glycogen to glucose was not always mentioned although exercise/cycling was.
- (iv) There were references to digestion without the essential point that glucose is then **absorbed** from the gut into the blood.
- There was a generally good understanding of the role of insulin although some candidates confused insulin with glucagon.
- (b) This question proved to be a thorough test of understanding. Although many candidates were able to produce an appropriate cross in (i) showing genotypes of offspring AA, Aa, Aa, aa, there was often no realisation of the fact that aa would not live to breed. Thus 1/4 was given instead of 1/3.

SECTION B

Question 4 (Assessment Objectives covered: A2, B1.1)

A very popular question.

- (a) Many candidates had a sound knowledge of heart structure and circulation. However there were too many answers which concentrated on the circulation round the body, giving details of the structure of blood vessels which were irrelevant in the context of this question. Some answers reversed the right and left sides of the heart and there was also some confusion with the position of atria and ventricles. Valves were often poorly described. Diagrams were often drawn but usually added nothing to the text.
- (b) Descriptions of the cause of a heart attack were far too vague, often relating only to fat deposits blocking vessels. The importance of a blood clot/thrombus was often missed. Knowledge of fat/cholesterol contributing to atheroma was good, but there was much confusion over the effects of cigarette smoking (nicotine lining artery walls/smoke travelling in the blood).
- (c) Many candidates were able to provide the correct sequence of blood vessels: capillaries, portal vein, hepatic vein, vena cava.

Question 5 (Assessment Objectives covered: A2, B1.1)

A popular question with some Centres.

- (a) Unfortunately failure to read the question properly led many candidates to compare sandy soil with clay soil. Few candidates contrasted features and there was a tendency to ignore particle size in favour of particle type. Many answers referred incorrectly to the **large** size of clay particles. Few candidates obtained more than six marks on this section.
- (b) Responses here ranged from excellent to abysmal. Attempts at comparison were often feeble. There was much confusion between 'nitrogen', 'nitrogen gas' and 'nitrates'.
- (c) Often the best answered part of the question. Pollutants were well known. Eutrophication was often mentioned but oxygen depletion in water was often wrongly attributed to its absorption by algae. Many candidates believe that lead free petrol eliminates carbon monoxide from car exhausts.

Question 6 (Assessment Objectives covered: A2, B2.3, B2.2, A3)

The least popular choice.

- (a) Most candidates were able to produce some form of dichotomous key. Arthropod classes were very well known as were the features of insects and arachnids. However, 'segments' were often confused with body 'sections'.

High scores were common on this part of the question.

- (b) Most answers correctly identified that the removal of the stigma and style in (i) would prevent seed production because pollination onto stigmatic surfaces would not be possible and that this would prevent fertilisation. In (ii) many candidates did not consider the inability to self pollinate but they did often refer to cross pollination making seed production possible.
- (c) Answers were often characterised by insufficient practical detail. This particularly applied to isolation of the variable eg little mention of plants of same species. Times of removal of stigmas/styles/stamens were imprecise.

Question 7 (Assessment Objectives covered: A2, B2.3, B2.2, A3)

A very popular question

- (a) Some candidates did not read the question carefully enough and concentrated on the time of the year (July) rather than giving a description of what would happen in a 24-hour period. Some candidates failed to realise that both photosynthesis and respiration are occurring in green plants in daylight. However, there were many carefully considered accounts of the changes in the pond showing excellent understanding and drawing attention to details such as compensation points.
- (b) No clear distinction was made between germination and growth in many answers. The growth in the absence of light was often described as 'stunted'. There was often little mention of etiolation. It is doubtful whether some candidates had ever actually seen etiolated plants.
- (c) As with question 6(c), experimental design was often very poor and vague in terms of specific detail. The idea of a 'fair test' was well established. Single seeds/seedlings were often used instead of batches.

PRACTICAL ASSESSMENT

In the last year of the four skill assessment scheme for biology, the trend of improvement has continued with fewer problems and fewer centres requiring adjustment. Difficulties have arisen largely because of procedural changes. The requirement of the Mandatory Code of Practice for the annotation of samples was not realised by many centres. The assessment of spelling, punctuation and grammar was included for the first time: many centres referred to the guidance document successfully and produced grades which accurately reflected the samples. Some centres failed to reflect the advice given in previous reports and there were both harsh and lenient examples of erratic marking. Other clerical and arithmetic errors persisted and clearly many centres do not verify either the addition or transcription of candidates' marks. An alarming number of centres also failed to include the necessary documentation by the due date, or sent it to the wrong place. It must be emphasised that it is the Centre's responsibility to send the required information to the moderator by the due date. Late submission can, and does result in late awarding of grades to candidates.

An unfortunate consequence of the confusion of the 'new' Science 1 procedure with this scheme has been an increase in the assessment of Skill A at the same time as Skill D (a mutually exclusive pair). Alternatively other Centres have improved their Skill D work, perhaps as a result of the Science 1 experience.

Most unfortunately, and despite all advice given in previous reports, some Centres persist in using non-practical exercises for the practical assessment.

Common errors and misconceptions which were still evident this year included:

Skill A

The assessment of this with skill D.

Failure to document/record individual achievement.

Failure to match the assessment exercise to the skill descriptor in the syllabus.

The imposition of arbitrary ceilings preventing candidates achieving maximum scores.

Skill B

Failure to target to the syllabus descriptor.

The use of formatted recording sheets, or 'hints' of how to proceed.

Failure to provide evidence of checking (particularly where credit is given for accuracy).

Skill C

The use of formatted recording sheets, or instructions of how to proceed.

Directed questions allowing little opportunity to proceed in any path other than the direction indicated.

Lack of reference to syllabus descriptors.

Skill D

Assessment of this with Skill A.

Lack of opportunity for demonstrating competence in all 3 parts of the skill (particularly evident with evaluation).

Impossible or impractical tasks set.

Grade Threshold Marks

Credit of up to 5% of unscaled marks was available for spelling, punctuation and grammar in Components 2 and 3. In the Component Threshold Mark Table which follows, the respective component maximum mark totals include marks for spelling, punctuation and grammar.

Candidates' performances were assessed on each component. The minimum level of performance (the threshold mark) was determined for each grade. These thresholds are given below as unscaled marks (i.e., the scale of marks used by the Examiners).

The relevant component thresholds were then related to each other in accordance with the component weightings to fix the overall threshold marks for the subject. Each overall mark is shown below as a percentage.

Component Threshold Marks

Component	Max. Mark	A	B	C	D	E	F	G
1. Paper 1	50	--	--	35	30	26	22	18
2. Paper 2	126	--	--	70	61	52	44	36
3. Paper 3	84	51	41	--	--	--	--	--
4. Practical Assessment	101	88	77	66	56	46	37	28

Overall Threshold Marks: Option A

	Max. Mark	A*	A	B	C	D	E	F	G
Components 1,2,4	100	--	--	--	62	54	46	39	32

Percentage of Candidates Awarded Each Grade

Total Candidature: 1426

	A*	A	B	C	D	E	F	G	U
Percentage in Grade	--	--	--	12.8	28.1	30.8	17.3	7.2	3.8
Cumulative Percentage in Grade	--	--	--	12.8	40.9	71.7	89.0	96.2	100

Overall Threshold Marks: Option B

	Max. Mark	A*	A	B	C	D	E	F	G
Components 1,2,4	100	--	--	--	62	54	46	39	32
Components 3,4	100	76	65	54	--	--	--	--	--

Note: All candidates were required to obtain a qualifying performance on Components 1, 2, and 4 in order to be considered for the award of a Grade A*, A or B on their performance on Components 3 and 4.

Percentage of Candidates Awarded Each Grade

Total Candidature: 17582

	A*	A	B	C	D	E	F	G	U
Percentage in Grade	7.8	22.4	28.5	25.0	10.4	4.3	1.2	0.4	0.1
Cumulative Percentage in Grade	7.8	30.2	58.7	83.7	94.0	98.3	99.5	99.9	100