

OCR Report to Centres

June 2012

OCR (Oxford Cambridge and RSA) is a leading UK awarding body, providing a wide range of qualifications to meet the needs of candidates of all ages and abilities. OCR qualifications include AS/A Levels, Diplomas, GCSEs, OCR Nationals, Functional Skills, Key Skills, Entry Level qualifications, NVQs and vocational qualifications in areas such as IT, business, languages, teaching/training, administration and secretarial skills.

It is also responsible for developing new specifications to meet national requirements and the needs of students and teachers. OCR is a not-for-profit organisation; any surplus made is invested back into the establishment to help towards the development of qualifications and support, which keep pace with the changing needs of today's society.

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 specification 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.

OCR will not enter into any discussion or correspondence in connection with this report.

© OCR 2012

CONTENTS

General Certificate of Secondary Education

Gateway Physics B (J265)

OCR REPORT TO CENTRES

Content	Page
Overview	1
B751/01 Unit 1 – Modules P1, P2, P3 (Foundation Tier)	3
B751/02 Unit 1 – Modules P1, P2, P3 (Higher Tier)	7

Overview

These new specification papers have offered different types and levels of challenge to those of the legacy specification. With the Sample Assessment Materials (SAMS) and the paper in January as examples, it has been evident that some centres have used these well in their preparations. In this sitting, only the Unit 1 assessments were available (B751-01 foundation and B751-02 higher). There has been a noticeable shift in questioning techniques that Ofqual had insisted on and these were evident for centres to see in these papers. As a result of this new approach, the mean marks on the papers were lower than in the past, but candidates gave good answers despite the increased challenge in the new style questions they faced.

On these papers, candidates were expected to apply more in terms of **data handling** skills and the **application** of physics knowledge and understanding. **How Science Works (HSW)** questions were more in evidence and again as in January, these left many candidates wondering what to do. Candidates are well advised to refer to the HSW statements at the front of the specification, as familiarity with the language at least, may help them direct their answers better. The reports on the individual papers, along with their mark schemes will help guide candidates and centres toward the desired expectations for success. Also, prompting in longer questions with bullet points, which has proved very successful in the past, will no longer be used in the setting of these papers. This led to answers that were often less focussed than we have been used to in the past. Good approaches on 3 to 6 mark extended prose questions were seen. Some candidates highlighted the key information and points on the question paper. This level of thought often gave answers that were more focussed and successful.

Calculation questions as a rule are being completed increasingly well. This is partly due to the formula being present on the paper. However, candidates do have to choose the correct formula and substitute the correct figures into it for 1 mark. The other mark is available for the correct answer. At higher level, they may be asked to rearrange the formula too. The usual errors or shortfalls include:

- missing decimal points from one of the input values (e.g. 15V rather than 1.5V)
- not using or forgetting to bring a calculator
- dividing the numbers the wrong way; irrespective of the division it is tempting for candidates to put the smaller number 'underneath the line'. For example if the correct division is $3 / 6$ which = 0.5 [2 marks], many will incorrectly divide $6 / 3$ to get 2 [0 marks].

Calculations are increasingly being asked where candidates choose numbers from a range of values. These questions may contain distracters in addition to what is really needed to answer the question. For example, a question to calculate acceleration given mass and force may also contain the distracters: speed or energy. This makes the selection of correct formula more demanding.

Calculations are also increasingly being presented in developed form. In these, candidates are asked to do a calculation to prove an answer, or to comment on a response, or to decide who is right. Often the maximum marks are only obtained when candidates refer to this developed aspect in the answer. Questions have also been asked where mixed units are stated. In these, for full marks a conversion, say from grams to kilograms, will be needed along with the correct calculation. Usually though, partial credit will be possible without the conversion if the calculation is correct.

Centres should remind candidates that scripts are scanned as black and white images, so the use of coloured pens or faint pencil is not recommended. In some instances, partially rubbed-out pencil lines were still visible. Furthermore, if candidates' answers do not fit in the designated area, a sensible approach used by many candidates is to indicate part of the answer is elsewhere on the page. An arrow is often all that is needed to highlight this. This will then direct the marker to open up the whole page and mark accordingly. If no such indication is there then the answer may be missed.

The Principal Examiners' reports which follow indicate good advice for teachers and candidates alike. Heads of science are advised to use them with their colleagues so that in classroom situations they can routinely and purposefully advise their students.

B751/01 Unit 1 – Modules P1, P2, P3 (Foundation Tier)

General Comments

The overall performance of the candidates was satisfactory to good although they often struggled with:

- the six mark level of response (LOR) questions
- the questions targeted at 'how science works'
- questions that required a link to gain credit
- calculations that required some prior or additional processing.

Centres had clearly benefited from the experience of the January examination and were able to adequately prepare their candidates for the June paper.

Candidates are finding it difficult to identify the level of detail required in the six mark questions and often either fall short of a complete answer or are distracted into an answer that does not really tackle the scenario presented in the question.

When asked to explain (i.e. questions testing AO2 or AO3 assessment objectives) candidates must be made aware that simply recalling facts and not applying them to the actual question will result in reduced or no marks.

The mean mark was lower than in January this could be put down to a more difficult paper although this is unlikely. The entry in January was small and possibly had been more carefully selected.

Candidates did not appear to be under undue pressure with regards to time, but need to organise their approach to answering the six mark questions more efficiently.

Comments on Individual Questions

- 1 (a) (i) The idea of liquid A starting at a higher temperature was correctly understood by a small majority of candidates. Vague answers merely stated 'different' temperature or that the surroundings were at a different temperature.
- 1 (b) (i) The concept of freezing applied to the graph in (a) was often poorly applied by candidates; melting was a common answer.
- 1 (b) (ii) The unit of energy was recalled successfully by most candidates, oC was the most frequent incorrect choice.
- 2 (a) Whilst 'infrared' was sometimes correctly ringed (by only 1/3rd of candidates), all of the other options were seen on scripts with wrong choices.
- 2 (b) (i) A relatively simple percentage efficiency calculation, where the common errors were to calculate $20000 \div 16000$ or to include a unit (e.g. $80\text{J} / 0.8\text{ N}$) or neglect to put '%' when the answer calculated, was 80.

- 2 (b) (ii) Candidates struggled to apply their knowledge to the practical situation in the question. They failed to appreciate that there would be trapped air between the panes of glass and that this would reduce conduction and convection. Many candidates included reference to a vacuum between the panes of glass, but did not appreciate what a vacuum is; they used the idea that a vacuum contains gas or particles. Heat trapped in the double glazing was a common error. Rarely did answers include correct references to reduction of radiated infrared.
- 2 (b) (iii) This question was answered much more confidently by most candidates, good answers clearly identifying absorption of radiation by black surfaces and reflection by shiny surfaces. Black attracting heat was often an error.
- 3 Whilst most candidates could give a number of methods for risk reduction, answers often over simplified the actual risks (e.g. cancer or harm without specifying skin). Only the very best answers referred to ultraviolet radiation as the cause of the potential harmful affects. Very few candidates successfully included the lower risk to people with dark skin. The weakest answers often merely repeated some potential risks or risk reduction methods and often included the idea that dark skin attracted heat.
- 4 (a) (i) Most could correctly name the amplitude.
- 4 (a) (ii) Crest and trough were not so confidently identified, although over 50% were correct; both crest and trough were needed and many had only one correct response.
- A / B was the frequent error, or the reversal of the correct pair.
- 4 (b) (i) The calculation was poorly done with a very low success rate. Candidates failed to appreciate that there were 10 waves and that the frequency = $8 \div 10$ and usually simply multiplied 8 by the wavelength (5cm) to obtain the incorrect answer of 40 or 50m/s. One mark responses were rare.
- 4 (b) (ii) Whilst most answers had the idea of water waves being slower, or v.v, many failed to mention much less. A significant minority had the impression that because the water waves involved a substance, they would be faster.
- 5 (a) Often answers were only partially correct, the digital being identified with no reference to which type signal A was. Although almost half gained some credit, descriptions of analogue were generally poor.
- 5 (b) Answers often only mentioned 'faster' with no mention of data volume, more information carried or less interference.
- 6 (a) (i) A high level of success generally with the error often being to reverse the order of Uranus and Saturn. Pluto, the Earth and the Moon were frequently included.
- 6 (a) (ii) Similarly 1.52 was often given. When 1.52 was not given as the answer 1.5, more often 0.52 or 0.48 was usually given.
- 6 (b) (i) A high success rate, but some candidates decided to use their own words; e.g. nebula.
- 6 (b) (ii) Answers about black holes acting like a vacuum or repeating the information given (light cannot escape) highlighted poor understanding of the concept in this question (only 20% scored the mark).

- 7 (a)** Often a description of the scientist in the diagram (goggles, hair tied back, wearing a lab coat) was all that was given. Other precautions were protective clothing, gloves or using tongs. Very few candidates went on to explain how the measures protected from beta radiation. Overall a good level of achievement.
- 7 (b)** Lots of good responses about lack of scientific evidence with fewer pointing out that the statements in the question were merely opinions.
- 8(a)(i) & 8(a)(ii)** The success rate for two marks in (i) was low (just over one in ten), 2070 being the most frequent answer. Sometimes this value was used correctly in the second part of the calculation although 9×12 was often in incorrect responses.
- 8 (b)** A very low success rate; candidates failed to use the data underneath the diagrams. They did not appreciate that more energy was used at night (to the contrary most thought that more was used during the day) and failed to appreciate the significance of long time use for the heater and fridge-freezer. Many just focussed on the costs per unit, given in the question, and completely ignored the appliances being used during the day or at night.
- 9** The candidates usually made good attempts at this question, recognising that ‘feature’ was the best washing machine and often used the data in the table correctly. Poorer answers failed to do this, often concentrating only on what Tarek’s friends said and making general statements of ‘good for the environment’. Other low mark answers concentrated on re-stating the information in the table (feature has a power of 800, an average wash time of 50 minutes and takes 4kg) without comments, processing, comparison or a conclusion in the answer. Better answers included the idea of two washes being needed (8kg of clothes) and a calculation of the total time needed (100 min.).
- 10 (a)** Candidates often failed to refer to area, their correct answer of ‘no’ being merely followed with an explanation in terms of ‘size’.
- 10 (b)** Graphs were often left with unlabelled or incorrectly labelled axes.
- The current as the dependent variable was not well appreciated. Size was often used as the independent variable but credit could be gained as candidates were not penalised twice for the same error. Bar graphs were not initially anticipated, but gained credit when correctly presented.
- Consequently approximately half of the answers gained some credit.
- 11 (a)** Candidates that correctly described the significance of time and distance measurements gained both marks relatively easily. Two photographs needed for identification of the car and the other photograph to measure the speed of the car or to calculate the speed twice from each individual photograph were frequent errors.
- 11 (b)** This was the most well done calculation on the paper (2/3rds gaining full marks), identification of the silver car and correct calculation of 20m/s usually gaining full marks.
- When incorrect selection of the largest distance (the scooter, 44m) was often the error although some credit was gained if the speed calculation was correct.
- 11 (c)** The majority of candidates were able to use the graph and deduce that Rachel was speeding, although some assumed from the graph that she would be travelling at 40 mph eventually.

- 12** Candidates struggled to address how the factors in the question would actually increase braking or thinking distance. References to road conditions, speed and alcohol were often just left as 'affect braking or thinking distance' without any quantifying. Some good descriptions of wet or icy roads reducing friction or grip often failed to take the response on to say this would increase the braking distance. Some confusion exists between thinking time and thinking distance. Few responses went on to link the two distances to stopping distance and the risk of a collision or the implications for road safety although this is a high level of demand on this paper. Candidates should be advised of the undermining of potentially good answers by contradicting good science in another part of their answer.
- 13 (a)** Often answers mainly concentrated on how the measurements would be obtained using sensors on dummies rather than what would actually be measured although there were many good answers correctly referring to mass and speed / velocity. Marks were sometimes lost by stating that the mass of the car was measured.
- 13(b)(i) & 13(b)(ii)** Most candidates could describe the ideas of re-testing or checking data with the follow on to more safety features in cars in the latter part.
- 13 (c)** Momentum and momentum change are difficult concepts and candidates found it difficult to link momentum change to the idea of force and resulting injuries in a collision.
- 13 (d)** The most well answered part of this question. The information in the table was generally used to good affect although the idea of absorbing energy was rarely included even in the better answers. Unspecific references to the airbag being deep or could change shape, weakened answers.
- 14(a) & 14(b)** The types of energy were often correctly identified in the first two parts of the question. The two were sometimes incorrectly reversed and unspecified energy were the errors in poor responses.
- 14 (c)** As with the first two parts, candidates often failed to state the type of energy that ball A or ball B had before or after the bounce. Many answers focussed on air resistance and very few realised the significance of both balls bouncing to the same height. A very weak end to the examination paper for the vast majority of candidates.

B751/02 Unit 1 – Modules P1, P2, P3 (Higher Tier)

General Comments

This was a challenging paper where very few candidates gained more than 65 marks out of 75. The overall performance of the candidates was satisfactory to good, although they often struggled with some aspects of the new style GCSE papers:

- the six mark level of response (LOR) questions
- the greater emphasis on applying physics knowledge rather than simply knowing it
- the questions targeted at 'how science works'
- questions that required a link of two or more ideas to gain credit; often both ideas were required for 1 mark.
- calculations that required some prior or additional processing
- questions involving the manipulation or processing of data.

Centres had clearly benefited from the experience of the January examination and were able to prepare their candidates for the June paper.

Candidates are finding it difficult to identify the level of detail required in the six mark questions and often either fall short of a complete answer or are distracted into an answer that does not really tackle the scenario presented in the question. Often also, although two or three 'prompts' are given in these questions, many candidates concentrate on the first or last point only. Good examples of approaches were seen where candidates highlight the key parts to the question and then systematically address those points in their answers.

When asked to explain (i.e. questions testing AO2 or AO3 assessment objectives) candidates must be made aware that simply recalling facts and not applying them to the actual question will result in reduced or no marks.

The mean mark was slightly higher (32 marks) than the January paper. This was probably more to do with the changed and larger cohort than paper difficulty.

Candidates did not appear to be generally under undue pressure with regards to time but need to organise their approach to answering the six mark questions more efficiently. Often these were 'half-done' with the intention of returning to them later. Sometimes this was not done. Also occasionally answers without answer lines (eg add to a diagram) were left incomplete. Simple checking at the end would eradicate this problem.

Virtually all candidates completed the last question and it had a very low omission rate.

Comments on Individual Questions

- 1 (a) Many realised that lower SHC of B [1] played a part here. Some mistakenly thought that they had different starting temperatures. Some also referred correctly to the surroundings for B were cooler – also worth [1]. In all about 30% of candidates gained the mark here.
- 1 (b) This question requires **two** linked ideas for the one mark and it caught out many candidates. Energy leaving the liquid and warming the surroundings gained [1]. Often the affect on the surroundings was not mentioned. Again as previously about 30% of candidates gained the mark here.

- 1 (c) (i) Although in many cases the 350g was often not converted to kg, the answer gained [1] for correct working (7000000). The correct answer 70 000 was less frequently seen. About 35% accurately did the calculation with the correct conversion, and about 50% gained [1] only.
- 1 (c) (ii) Many knew there was a change of state [1] (about 40%) but rather fewer (12%) knew that bonds were being formed [1]. Most thought that bonds were being broken [0].
- 2 (a) (i) Candidates who misread the question answered 'conduction' here [0]. Radiation (above the glass) was the required answer. Over 60% of answers failed to score this single mark.
- 2 (a) (ii) Few candidates referred to convection here [1]. Better answers though went on to explain about less warm dense water rising or cool dense water sinking [1].
- 2 (b) (i) This efficiency calculation involving a rearrangement of the formula was done well by 66% of candidates.
- 2 (b) (ii) This question was answered well with most good answers referring to black being a good absorber [1] or shiny surfaces reflecting heat back in [1].
- 2 (c) (i) This unusual question puzzled some candidates. The standard form, which we are required to assess was misunderstood by some. The highest grade candidates answered it well with $3 \times 10^8 \div 0.001$ [2] being commonly seen with 25% of the candidates. Rather more common though was $3 \times 10^8 \div 1\text{mm}$ which scored [1].
- 2 (c) (ii) This was a linked question so many achieved only one of the two marks available. Short waves have a high frequency [1] and more energy [1] was clearly written by more able candidates (20%). More commonly seen were answers which referred to either high frequency **or** more energy [1] (30%).
- 3 This 6 mark level of response (LOR) question was attempted by most candidates whose answers were levelled accordingly.

Clear level 3 answers (5 or 6 marks) showed the idea of sensible government action AND idea of increased risk for people AND ozone hole linked to CFC's. Level 2 answers (3 or 4 marks) showed the idea of sensible government action AND either idea of increased risk for people or ozone hole linked to CFC's. Level 1 answers showed a simple idea of risk for people OR sensible government action OR ozone hole created. Common misconceptions were that CO₂ and global warming was to blame. CFC's were often mentioned although sensible government action was often not.

45% of candidates gained 5 or 6 marks here with level 3 responses showing the question was well answered. Only A* candidates generally gained full marks on this.

- 4 35% of candidates gained full marks on this question.
- 4 (a) Part a. was well answered with most selecting the correct stations [1] and referring to their similar frequencies [1].
- 4 (b) Digital signals 'giving a higher quality end signal or sound' [1] was often seen or at least attempted. Sometimes answers only mentioned that digital signals do not get interference at all [0]. Rather fewer wrote of digital being able to carry more signals or stations [1]. Multiplexing was frequently seen [1].

- 5 (a) 70% of candidates drew a higher frequency wave on the diagram [1]. Often the amplitude was different though, although this was ignored by the markers. Occasionally, however, this answer was not attempted as candidates failed to realise that it was a question.
- 5 (b) Many candidates had difficulty communicating their answer. Many simply described the graph – ‘it goes up and down’ [0]. Good answers (20%) stated that the voltage changed direction or went from positive to negative [1].
- 6 25% of candidates gained full marks on this question.
- 6 (a) Most could order the life cycle of stars correctly [1].
- 6 (b) In part b. this How Science Works (HSW) question puzzled many with only 25% gaining both marks which were available for any two from:
teams of scientists: looking at different theories / views / ideas / opinions [1]
teams bringing different equipment / resources / technology / skills [1]
different teams taking / checking different measurements or data [1]
- 7 Most candidates got 2, 3 or 4 marks on this 5 mark question.
- 7 (a) (i) 80% knew that paper stopped alpha radiation [1].
- 7 (a) (ii) Many candidates focused on the liquid [0]. The main point sought was that the container itself would absorb the radiation [1]. ‘Radiation could not get out of the container’ was a common correct response [1].
- 7 (b) (i) Most answers referred to the increase in reliability (or confidence) [1] or that they could calculate an average [1].
- 7 (b) (ii) The interpretation of the results involving data handling was a clear challenge to many. 40% failed to gain a mark here. Marks were available for the count being reduced by aluminium and reduced further by lead (1). Most however, gave a sensible reason for the link between lead absorber and gamma [1]. Eg lead stops (most) gamma. Less clearly described was a sensible link between the aluminium absorber and beta or gamma [1]. Eg aluminium stops beta or lets gamma through [1]. Often candidates became confused in their communication of the answer.
- 8 (a) The success in this calculation was variable on this higher paper. This was a common question with foundation. Sometimes [2] was awarded for 20.70. Often though 2070 was a frequent answer. In many cases candidates would carry this error forward and gain [2] in part ii., although 9×12 was frequently seen in incorrect responses.
- 8 (b) A very low success rate; candidates failed to use the data underneath the diagrams. They did not appreciate that more energy was used at night (to the contrary most thought that more was used during the day) and failed to appreciate the significance of long time use for the heater and fridge-freezer. Many just focussed on the costs per unit, given in the question, and completely ignored the appliances being used during the day or at night.

- 9 (a)** This three mark question on photocells was quite well answered. Most candidates understood that the light was absorbed by the silicon [1] whose electrons were knocked away [1]. Rather fewer could convincingly describe these freed electrons as moving around the circuit [1]. It discriminated well.

This 6 mark level of response (LOR) question was attempted by most candidates whose answers were levelled. Most got into the description of the experiment but often the clear idea of a fair test was not communicated. The tests taking place 'at the same distance from the light source' was not communicated particularly well. The vague idea of 'the same time' and using 'the same sun' was often seen. Often omitted was also the measurement of current or voltage. Some also thought that photocells gave out light rather than absorbed it.

The levels of response were as follows:

Level 3 answers showed a sensible detailed or quantitative prediction with an explanation AND a clear workable plan involving clear fair testing.

Level 2 answers showed a sensible prediction or explanation AND a clear workable plan involving clear fair testing. Level 1 answers showed a sensible prediction OR a basic workable plan.

There were some good level three answers here (only about 5%) who described how doubling the area doubles the electrical output as double the light releases double the electrons available. This coupled with a sensible plan with fair testing gained this quality of answer [6] marks.

- 10(a)(i) & 10(a)(ii)** Part a. was a HSW question and it was a great challenge to most candidates. In part ai. examiners were seeking to award marks for fewer pedestrians / cyclists killed compared to car occupants [1]. Alternatively fewer pedestrians / cyclists killed compared to previous year(s) also gained [1]. Many though, just described the graph – 'it goes down' [0]. In the second part, which was targeted at a much higher demand, candidates often struggled to communicate their answers. A* candidates were better equipped to give good answers here and many referred to one or two of the following: data does not distinguish pedestrians from cyclists [1]. Total numbers of deaths for cars not shown [1]. Total numbers of deaths for pedestrians are not shown [1]. Total numbers of deaths for cyclists are not shown [1]. Less than 20% scored [2] marks here.

- 10 (b)** This [2] mark question on momentum and seatbelts was quite well answered. Most got [1] mark for the basic idea that there was less force or acceleration or that the time was increased [1]. Rather fewer correctly used the momentum idea. Some used the equation well and explained that the rate of change of momentum happened over a longer time requiring less force [2]. Simpler wording such as 'reducing the rate of change of momentum' gained [2]. Good grade A candidates generally scored [1] here with only A* candidates gaining [2].

11 Very few gained more than 3 marks in total for this 7 mark question.

- 11 (a)** This [2] mark A* question discriminated well for good A* candidates. Most candidates gave an answer of 15m [0]. Better candidates realised that they needed to use the area under the graph or the idea of average velocity to calculate the answer. About 4% got it right.

- 11 (b) Many gained [1] mark here but it was rare to see [2]. Many argued that braking does not always leave a mark [1] or that the weight of the car could be different [1]. Others wrote of bald tyres or wet roads [1].
- 11 (c) (i) About 30% knew KE doubled as mass doubles [1]. Although many just stated KE increases [0].
- 11 (c) (ii) Rather more (about 35%) knew that the KE quadrupled as speed doubled [1]. Many stated it increased [0], halved [0] or doubled [0]. Again some stated it increased [0].
- 11 (c) (iii) Rather fewer related this to the other parts correctly. Some stated correctly that it quadrupled [1].
- 12 This question on balanced and unbalanced forces discriminated well within the higher portion of the ability range. Few score more than 4 of the 7 marks available.
- 12 (a) Weight is greater than drag gained [1] here for 42% of candidates.
- 12 (b) Weight = drag was given by over 60% of candidates [1].
- 12 (c) Few described this as drag is greater than weight [1]. Most correct answers however, wrote about the drag increasing because of the large surface area [1]. About half of answers gained the mark here.
- 12 (d) This part was worth [2] marks although most correct answers (25%) scored [1] only. Marks were available for: large surface area causes more drag [1]. The surface area to weight ratio has increased [1] (rarely seen). Drag = weight at a lower speed [1] (often seen). Only about 3% gained both marks here.
- 13 This was a common LOR question aimed at grade C and D. Candidates struggled to address how the factors in the question would actually increase braking or thinking distance. References to road conditions, speed and alcohol were often just left as ‘**affect** braking or thinking distance’ without any quantifying. Some good descriptions of wet or icy roads reducing friction or grip often failed to take the response on to say this would **increase** the braking distance. Some confusion exists between thinking time and thinking distance. Few responses also went on to link the two distances to **stopping** distance and the risk of a collision or the implications for road safety. Candidates should be advised of the undermining of potentially good answers by contradicting good science in another part of their answer.

Level 2 answers were most common on this higher paper with only A and A* candidates generally accessing 5 or 6 marks.

OCR (Oxford Cambridge and RSA Examinations)
1 Hills Road
Cambridge
CB1 2EU

OCR Customer Contact Centre

Education and Learning

Telephone: 01223 553998

Facsimile: 01223 552627

Email: general.qualifications@ocr.org.uk

www.ocr.org.uk

For staff training purposes and as part of our quality assurance programme your call may be recorded or monitored

Oxford Cambridge and RSA Examinations
is a Company Limited by Guarantee
Registered in England
Registered Office; 1 Hills Road, Cambridge, CB1 2EU
Registered Company Number: 3484466
OCR is an exempt Charity

OCR (Oxford Cambridge and RSA Examinations)
Head office
Telephone: 01223 552552
Facsimile: 01223 552553

© OCR 2012

