

Physical Education

Advanced GCE A2 H554

Advanced Subsidiary GCE AS H154

OCR Report to Centres

January 2012

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This report on the examination provides information on the performance of candidates which it is hoped will be useful to teachers in their preparation of candidates for future examinations. It is intended to be constructive and informative and to promote better understanding of the 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.

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Overview

In this January 2012 series a significant cohort of approximately 4000 candidates sat the G451 examination. Many of these candidates were re-sitting. The G453 cohort was much smaller; approximately 600 candidates some of whom, after only a limited amount of time studying this A2 unit, appeared a little under-prepared.

Both Principal Examiners commented on the continued improvement of candidates answering of the levels of response marked extended questions. The majority of candidates appeared to appreciate the need to plan their answers and respond appropriately to the command words within the question. Both Principal Examiners also commented on candidates' ability to relate theoretical concepts to balanced, active, healthy lifestyles and to support this with appropriate practical examples. Both these improvements indicate centres' increasing understanding of the requirements of this relatively new specification.

It was pleasing to note that examiners' attempts to improve accessibility to the questions, particularly within the G451 examination, are proving successful as is indicated by the increased mean mark.

Unit G451 An introduction to Physical Education

General Comments

The January 2012 paper has seen a significant increase in the mean mark achieved by candidates. This is despite the fact that this January cohort is very similar in terms of its academic profile to the January 2011 cohort. The increase in the mean, therefore, has not come about as a result of this being a better cohort but as a result of other factors.

In particular, examiners reported that candidates found this question paper 'more accessible' than had been the case with previous recent G451 question papers and the item level data bears this assertion out. As well as the paper assessing topic areas candidates clearly felt comfortable with, question setters had also sought, following feedback from centres, to try to eliminate any perceived 'hurdles' to candidates understanding of what was being asked of them. For instance, there was a reduction in the number of 'compound' questions and a subsequent increase in the number of questions with sub-parts ie 1(c)(i) and 1(c)(ii), for example. This has had a positive impact on the raw mark achieved by candidates.

The grade boundaries for G451 in January 2012 reflect this increased accessibility; a factor which has been accounted for when comparing the performance of these G451 candidates with that achieved by candidates in previous series.

Examiners also report that examination technique is somewhat improved; there were fewer 'Nil Responses' and questions were clearly numbered on additional sheets where appropriate. Where relevant, candidates are also increasingly able to link to BAML in their answers.

Candidates again demonstrated the improvement seen in recent series in respect of their ability to break questions down and identify the command word (eg identify, describe, explain, evaluate), the subject being examined (eg blood pressure, expiration during exercise, transfer of learning, cognitive theory, the Olympic Games, the golden triangle) and, crucially, the subject focus (or specific aspect(s) of the subject being examined). Candidates also continue to seem much more in tune with what is expected of them as regards the 10 mark e part-question. The most successful candidates in this regard incorporated a plan (which they did not cross out) and relevant and interesting practical examples throughout their answers.

Part-questions a - d tend to have a maximum of six marks. On these questions candidates should continue to note the exact number of marks available and give sufficient distinct points so as to reflect the question weighting. There was no obvious evidence that candidates lacked time on this paper. However, candidates were more successful in fully completing Sections A and C than Section B.

Some candidates failed to indicate on the main body of the script where they had used additional paper which should be guarded against. There is still evidence of writing being squashed into the margins and under the designated lines allocated to each question which is also advised against.

Candidates who found the 10 mark e part-questions challenging need to be clear about the five criteria on which the extended questions are judged.

These criteria are:

- Knowledge and understanding of key points
- Development of key points
- Use of practical examples to illustrate those developed points
- Use of correct technical vocabulary
- Quality of written communication

The standard of response across the three sections on the paper was fairly equitable. Each section had part-questions where the candidates scored well, and parts that candidates found more challenging, the latter acting as important discriminators.

Section A: Anatomy & Physiology

- 1(a)(i) Point 1 accessed by a significant majority.
- (a)(ii) Well answered with most candidates accessing a maximum marks. Some lost marks due to not naming "brachii".
- (b) Whilst this question proved to be accessible to all but a very few candidates, there was evidence of a lack of detail/clarity when identifying the intercostal muscles required to gain pts 1/8. Many did not pair together the diaphragm and the external intercostals. Points 6 and 13 were regularly achieved with 5, 7 and 12 rarely accessed. Candidates achieved most marks in relation to inspiration.
- (c)(i) This part-question was poorly answered. The majority of candidates referred to bone disease rather than OA being a (degenerative) joint disease. Where cartilage was mentioned, candidates often failed to mention articular / hyaline. Pt 4 was awarded most frequently. Points 3 and 5 were rarely accessed if at all.
- (c)(ii) This part-question was poorly answered with most candidates accessing just 1 - 2 marks with points 3 and 4 the most commonly accessed. Few candidates considered both prevention and cause. Candidates tended to repeat their responses to the previous question and were not specific enough about the cause and development of osteoarthritis. Pts 3, 4, 8, 9 were most frequently accessed.
- (d)(i) This part-question was a good discriminator resulting in an equal spread of marks.
- (d)(ii) Candidates tended to offer a lot of irrelevant detail in respect of the movement of oxygen. A significant minority did not score on this question.
- (e) Candidates, on the whole, referred to both warm up and cool down. Warm up was often covered in more detail than cool down. Candidates placed more emphasis on the skeletal muscle tissue area of the mark scheme. Reference to the vascular system tended to be primarily about the knowledge content of pts 10 -14 with only limited reference to the development points specified. Very few candidates visited pt 15.
- Candidates appeared to adopt a similar approach when responding in respect of the cool down where the basic concepts were covered well ie reference to heart rate, venous return and blood pooling. However, there was evidence of a lack of detail when referencing concepts such as blood flow, oxygen distribution, lactic acid, etc. Candidates tended to provide a functional description of the 'systems' at rest, without considering the changes that occur during a warm up/cool down.

Section B: Acquiring movement skills

- 2(a) Most candidates knew the environmental continuum and used appropriate examples alongside their explanations. This was a high scoring part-question with, in most cases, candidates demonstrating an understanding of both the environmental influences and providing an applied practical example. There were, however, candidates who still view the concept of environmental influences as purely 'indoors or outdoors' and 'windy or not windy'.
- (b)(i) Closed loop control still appears to challenge most candidates with much evidence of insecure understanding. The role of kinaesthetic feedback and its function in controlling/adapting movements during a performance seems widely misunderstood, as is the case with the perceptual/memory trace comparison. Many candidates scored point 4. Points 2, 3, 6 & 7 were seldom offered.
- (b)(ii) This part-question was poorly answered. Candidates failed to provide examples that referenced adjustments being made by the performer. The accuracy of the example was usually a reflection on whether b(ii) had been answered correctly or not.
- (c) On this part-question basic understanding was evident amongst most candidates. Points 1/2 were achieved most readily by candidates. Pt 3 generally lacked the emphasis on the sudden/extreme/acute drop in performance and tended to simply refer to performance getting worse. The inter-relationship between cognitive and somatic anxiety was grasped by only the better candidates, as was the case with the cognitive impact on performance. As regards, pts 7/8, most failed to combine the change in arousal/cognitive anxiety with the resulting effect on performance. In fact, the applied understanding of the theory was beyond some candidates. Also, there was much repetition of the word 'catastrophe' to explain pt 3 and in addition, a number of candidates mixed up arousal and motivation.
- (d)(i) The visual guidance aspect was generally well answered by most candidates. The mechanical guidance aspect was less well answered. In particular, the link between theory and the practical example tended to be lacking.
- (d)(ii) This part-question generated a very wide range of responses. Many demonstrated a clear understanding as to the influence of each form of guidance on BAHL, whilst others displayed little or no understanding as to how each type of guidance might be linked to BAHL.
- (e) Some candidates had a sound grasp of all three types of reinforcement and their links to both participation and BAHL. Positive reinforcement was understood in varying degrees, with most able to generate a reasonable amount of knowledge credit with development points most notably relating to pts 1 - 3 on the mark scheme. Negative reinforcement was far less well understood. Answers on punishment tended to focus on pt 14, followed by a suitable example and followed up by reference to pt 16. There was very little evidence of candidates referring to pts 19/20. Some focussed on feedback rather than reinforcement. Points 4, 5, 6, 7, 11, 17, 18 - 21 were rarely accessed. The majority of candidates achieved in Levels 1 and 2.

Section C: Socio-cultural Studies relating to participation in physical activity

- 3(a)(i) This part-question was generally well answered.
- (a)(ii) Most candidates gained at least two of the three marks available. Those who failed to gain marks simply wrote in general terms about the media and failed to identify the key terms ie inform/educate/entertain/advertise. Point 4 was the least visited.
- (b) This part-question was again generally well answered with all mark scheme pts 1 - 11 being accessed across the range of candidates.
- (c)(i) Well answered – vast majority knew an example of a surviving ethnic sport – mainly cheese rolling and Highland Games.
- (c)(ii) Reasonably well answered. Points 1,6,7,8 most commonly accessed
A reason needed to be linked to an explanation for each mark to be awarded. The best candidates structured their response effectively. Others though, often failed to do this and simply wrote about reasons in general or explanations in general. Many explanations were deemed 'Too Vague' and explanations about 'local' and 'annual' were often muddled.
- (d) The more perceptive candidates clearly understood the impact on the host country in terms of nation building with only the more able candidates accessing pts 7/8/9. The mark scheme proved to be accessible for all with most candidates accessing two or more marks. Points 8 and 9 were rarely accessed.
- (e) A good spread of marks was in evidence for this part-question. Pts 1-4, 22-29, 32-34 and 37-38 were the most frequently offered with in many cases a suitable accompanying developed point.
A significant minority of candidates only addressed half of the question (barriers), which limited their access to the higher levels. When both parts were addressed, barriers were discussed in more depth. The majority of candidates accessed Level 2 with many on the boundary between Levels 1 and 2.

Unit G453 Principles and concepts across different areas of Physical Education

General Comments

Most of the candidates who sat this examination appeared well-prepared. However, as was the case in the last January series, there was a significant number of candidates who were not sufficiently prepared for entry. In some instances these candidates were unable to complete the paper. Questions were left unanswered suggesting that they were not prepared for all topics. Some candidates responded to the 20 mark (d) part-questions first, but the majority answered the paper sequentially and most adhered to the rubric.

Only material that is relevant and serves to answer the question set should be included in a response to the (d) part-questions. Some candidates included information that was not related directly to the requirements of the question and consequently were unable to score much credit and, in addition, used up valuable time.

This examination is designed to assess the knowledge and understanding related to Physical Education theory and also its application; this includes testing candidates' ability to analyse and evaluate critically Physical Education material from the optional areas. The majority of candidates chose the questions on Historical Studies, Sports Psychology and Exercise and Sport Physiology. Fewer candidates attempted the Comparative Studies question and even fewer the Biomechanics question.

The quality of written communication was satisfactory overall with many candidates planning for the (d) part-questions. Those candidates who scored less well on the (d) part-questions tended not have planned which often resulted in a disjointed and sometimes incomprehensible answer. Centres are reminded that candidates should be fully prepared to give practical examples not just from sport and physical education, but also for regular exercise, a balanced diet and the avoidance of an unhealthy lifestyle.

Comments on Individual Questions

Historical Studies

- 1(a) Many candidates described Stage One of athleticism well and gave answers that painted a clear picture of life in 19th century public schools. Those that scored less well gave a list of characteristics rather than offering description. Most candidates gave a valid reason for the transition to Stage Two with most describing the reforming work of Dr Arnold.
- 1(b) Many candidates explained the influence of the Oxbridge graduates on the development of rational recreation well but fewer gave a good account of the university 'melting pot'. Some candidates described the 'melting pot' of the public schools rather than the universities and consequently scored fewer marks. The best candidates gave a good account of the return of graduates to their schools and their influence on rational recreation in those schools.
- 1(c) Many candidates gave an account of why women got involved in lawn tennis but did not address the requirements of the question ie lawn tennis as a vehicle for the emancipation of women. Better candidates described how women could feel free from some of the traditional Victorian constraints at a time women were still viewed as unable to be 'too athletic' because it was deemed as 'unladylike'. Many candidates provided a good

explanation in terms of how tennis strives to be an inclusive game in the UK today. However, too many candidates misunderstood the word inclusive and became side-tracked by describing the equity of prize money for men and women in elite tournaments such as Wimbledon.

- 1(d) In this 20 mark (d) part-question, some candidates explained the 1950s syllabus and why it replaced the 1933 syllabus well. Other candidates became side-tracked and described the 1902 model course and the 1933 syllabus with little reference to the 1950s approach. Others described the 1950s approach but did not explain why it replaced the 1933 syllabus and therefore scored fewer marks. Better candidates offered balance in respect of their answers by then going on to evaluate whether the National Curriculum of today is better than the 1950s approach. Some excellent candidates saw merit in both approaches and supplied good practical examples relating to each era. The best candidates wrote fluently and in well-constructed paragraphs. They demonstrated appropriate balance (in respect of the strands of the question), effective evaluation and offered a well-argued conclusion.

Comparative Studies

- 2(a) Overall a well answered question with many candidates explaining the popularity of Australian Rules football in Australia and the relative lack of interest in the UK well. Good responses made reference to both the importance of heritage and the fact that Australian Rules football is a distinctly Australian game and reflects Australian culture. Good responses also made reference to the dominance of other sports in the UK and the lack of knowledge and understanding of this game in the UK.
- 2(b) This question demanded that comparisons be made between the provision of elite sport in the UK and Australia and yet many candidates simply wrote about both countries without comparing them directly, or even indirectly. Indeed, some candidates did not mention UK provision at all. It is important that centres reinforce the message often cited in these reports that when asked to compare, candidates must seek to write about the country specified in the question and then compare this with the UK. Better candidates did make these comparisons effectively and referred to government involvement, institutes and facilities in both countries.
- 2(c). As might be expected, many candidates demonstrated a good understanding of Physical Education in the UK but relatively few could describe and then compare Physical Education in the USA. Many described sport in the USA rather than Physical Education and, once again, weaker candidates made few comparisons between the two countries. Excellent responses demonstrated a good understanding of the status of Physical Education in both countries and the different emphases in each.
- 2(d) In this 20 mark (d) part-question, better candidates adhered to the requirements of the question and explained and compared the cultural factors that influence sporting excellence in the UK and the USA. Many candidates demonstrated a good understanding of this area of the specification and could make direct comparisons making effective use of practical examples. Weaker candidates made few comparisons and 'described' rather than 'explained' the influences. Better candidates planned their answers and gave a structured and fluent response with few errors in spelling and punctuation

Sports Psychology

- 3(a) Most candidates scored well on this part–question. Most could describe the personality characteristics but too many described Type A and Type B without using practical examples as the question required. When practical examples are asked for they must be included in answers to score marks. Those candidates that give the names of sports or sports stars as practical examples, rarely score any marks. For example, candidates who assert that “Type A people are those that enjoy football” would not normally score any marks because all types of personality “enjoy football”.
- 3(b) Again, in this part–question some candidates were unable to score full marks because they did not give practical examples relating to the broad and internal attentional styles. Many candidates, however, were well aware of these styles and could describe them accurately.
- 3(c) This part–question was the least well–answered in this topic area. The best candidates scored full marks because they kept to the requirements of the question and explained the effects of groups on the behaviour of individuals rather than the other way around. Some gave vague answers related to the forming of groups rather than individual behaviour. Those that then related the behaviour to lifestyle were more able to gain full marks. Once again it is important to emphasise the need for candidates to read and fully understand the requirements of the question before attempting their answer.
- 3(d) Most candidates explained the leadership theories well but too many failed to evaluate these theories. Those that tried to balance the nature and nurture theories did well and also gave good practical examples to illustrate their points. Some candidates did not answer the second part of the question and could not then access the upper levels of the mark scheme. Those that did gave a good account of autocratic and democratic leadership styles. The better candidates linked these styles to behaviour related to a healthy lifestyle as required by the question. The best candidates wrote in a fluent style, used paragraphs and demonstrated purposeful planning.

Biomechanics

- 4(a) Many candidates could identify the axis of rotation but surprisingly few accurately calculated the average velocity of the somersault.
- 4(b) Many sketched an accurate force/time graph as required. Some candidates did not give the two required responses and could not, therefore, access all the marks. Once again reading each question carefully before responding is always worth the investment of time involved.
- 4(c) This proved to be a challenge for many candidates and some did not give an effective explanation of the lift force. Weaker candidates also did not respond to the second part of the question. The best candidates, however, gave a clear explanation which included identifying the discus as an aerofoil shape and the relationships between high and low pressures.
- 4(d) This was answered well by many candidates. They logically answered the question ‘step by step’. Better candidates used accurate free body diagrams for each stage; split their responses into balanced and unbalanced forces and included both horizontal and vertical directions. It is clear that those who planned their response and ensured that each variable in the question was addressed, scored well.

Successful candidates used practical examples throughout their answer; the kicking of a rugby ball, high jumpers, divers and those attempting a sprint start, for example, were used by candidates to illustrate their understanding of balanced and unbalanced forces.

- 5a) Many candidates described how the lactic acid energy system provides energy for the body during high intensity activity well. Most candidates appeared well prepared and gave a full description to gain the available four marks; four well described and separate points were enough to gain the four marks available.
- 5b) The calculation was generally poorly done by the majority of candidates and many simply left this part of the question unanswered. It is important that all candidates are reminded that any area of the specification can be assessed in the examination and so it is advisable to revise the whole specification thoroughly. Most could describe three effects of obesity although some gained few marks because they did not relate these effects to involvement in physical activity.
- 5c) Most identified the two required physiological factors that can affect strength but many gave superficial responses to discussing the use of plyometrics and merely described the method rather than applying it to developing dynamic strength.
- 5d) This question was answered well by many candidates. The best candidates gave a range of different aids, explaining the effects of each. The explanation also included a critical analysis of their positive and negative effects as well as a statement regarding the legality of their use. These candidates planned their answers well and gave valid practical examples of ergogenic aids in use. Many gave an informed conclusion of the use of ergogenic aids and how they can help in some cases but in other cases can bring sport into disrepute as well as harming the health and well-being of athletes who use the illegal forms of ergogenic aids. Better candidates wrote fluently and in paragraphs and used technical vocabulary well especially when explaining the physiological effects of each ergogenic aid.

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