



**General Certificate of Education (A-level)
June 2012**

Physical Education

PHED3

(Specification 2580)

**Unit 3: Optimising performance and evaluating
contemporary issues within sport**

Report on the Examination

Further copies of this Report on **the Examination** are available from: aqa.org.uk

Copyright © 2012 AQA and its licensors. All rights reserved.

Copyright

AQA retains the copyright on all its publications. However, registered schools/colleges for AQA are permitted to copy material from this booklet for their own internal use, with the following important exception: AQA cannot give permission to schools/colleges to photocopy any material that is acknowledged to a third party even for internal use within the centre.

Set and published by the Assessment and Qualifications Alliance.

The Assessment and Qualifications Alliance (AQA) is a company limited by guarantee registered in England and Wales (company number 3644723) and a registered charity (registered charity number 1073334).
Registered address: AQA, Devas Street, Manchester M15 6EX.

PHED3

Optimising performance and evaluating contemporary issues within sport

General

The nature of this paper requires students to display both a broad knowledge of a wide range of theoretical topics and a more in-depth understanding of several areas within each of the three sections of applied physiology, psychological aspects and evaluating contemporary influences.

It is pleasing to see the mean average for the paper has increased by 4 marks compared to last year. The extended questions produced slightly higher marks, which was due to a combination of better quality answers and a modification of the band marking criteria. This year students were required to achieve a reduced number of points in the top two bands to achieve the highest mark in each band. The remainder of the paper produced marks that were broadly in line with expectations.

The extended questions are intended to differentiate between students and offer a stretch and challenge element to the examination. This aim was definitely achieved, as a full range of marks was evident, clearly allowing those students with an in-depth knowledge to access the higher marking bands. It must be remembered that these questions require students to do more than simply put down 14 creditworthy points in order to gain maximum marks. Marks are awarded for the whole of the response and take into account range and depth of knowledge, answering all aspects of the question and the use of good technical language and grammar. However, it must be noted that the use of a planner or spider-diagram to outline the points to be included in the answer is not marked by examiners. This is due to the requirements of the question to write in full prose and to put responses into the correct context.

As with last year it was pleasing to see further improvement in the quality of the answers for questions that required students to produce a discussion. The vast majority of answers attempted to offer points from both perspectives, which obviously reflects the work that staff have done to develop student awareness of this skill.

Although an improvement from previous years, general weakness throughout the paper was the lack of application of specific theories to applied situations. Too often answers did not supply sufficient detail to gain marks and many were unable to link the relevant theory to the topic area. This should be an area of development as many students could have achieved more marks if they were able to name the correct theory initially. Students should be reminded that if the question states 'use appropriate theories', and none are named, the answer will gain no marks. However, it is obvious that the students have been well prepared this year and staff have explained the requirements of the paper to them.

However, it must be pointed out that students must focus on ensuring their handwriting is legible. On numerous occasions examiners attempted to read the student's answer and were unable to credit marks because the writing was illegible.

Section A

Question 1

- 01.** The question required students to demonstrate their knowledge of altitude training and the factors affecting VO_2 max. There were a full range of marks awarded and the majority of students attempted both aspects of the question.

The better answers provided a brief explanation of altitude training and did discuss the advantages and disadvantages of this training method. Common mistakes included answers that were too vague, for example, 'the air is thinner', rather than 'less oxygen available' or 'lower partial pressure'. Similarly when referring to height above sea level, the weaker answers included phrases such as 'up in the mountains' or 'a long way above sea level'. Students also lost a mark for being too vague about the impact of the training and repeated the question, stating that 'increased oxygen carrying capacity improves the ability to delay fatigue' or 'they keep going for longer' rather than 'delaying lactate threshold' or an equivalent technical explanation.

The second section linked to VO_2 max asked students to explain the contributing factors. Whilst many did this, a large number simply listed the factors and made no attempt to expand on how the named factors affected VO_2 max. Marks were also available for the correct definition, although many failed to gain credit as answers were too vague, for example not stating that VO_2 referred to the maximum amount of oxygen used or having no link to the notion of consumption.

Question 2

- 02.** Students were required to explain the terms 'lactate sampling' and 'respiratory exchange ratio'.

This was not a popular question and generally the first term was more widely known than the latter. The majority of students were able to outline that lactic acid was tested via blood samples and that it determined OBLA or lactate threshold. However, large numbers were unable to give any reasonable outline of RER, with only the better students making the link to the use of fats and carbohydrates.

- 03.** The question focused on hyperbaric chambers and the majority of students did not have a clear understanding of this method of injury rehabilitation. The better responses linked high pressure of 100% oxygen to a reduction in swelling, but often the answers were too vague to gain credit. Some also confused the use of hyperbaric chambers with hypoxic tents.

Question 3

- 04.** The inclusion of a diagram making reference to the use of energy sources, energy systems and changing intensity of exercise was intended to guide students to use their knowledge in an applied manner. Those that did this scored good marks. However, as with previous papers too many students simply outlined all the energy systems in a rote fashion. This did not allow them to gain marks. Teachers must attempt to develop students' ability to apply their knowledge to the question and consider their answer rather than outline all the energy systems and assume marks will be awarded. Too many answers simply explained the ATP-PC system, followed

by the lactic acid system and finally the aerobic system. Whilst some answers appeared to include relevant points from the mark scheme, the context of the response meant that no marks were awarded. The better answers made reference to the changing intensity of the activity and the different energy sources to be used utilising different energy systems.

Question 4

- 05.** This question explored the students' knowledge of Newton's Laws of Motion, specifically the Second Law of Acceleration. As with the previous question, students were expected to apply their knowledge rather than simply remember facts. A large number of students gained 1 or 2 marks but many failed to show knowledge of this specific law and often attempted to combine all three laws together. A common error was rather than making reference to 'muscular force', students often said 'force provided by the legs or body', which was not worth marks.
- 06.** This was the first time a question on Sliding Filament Hypothesis has been asked and students either knew the answer or not. The vast majority of students gained 3 or 4 marks and it was pleasing to see that teachers had spent time developing an understanding of this area of the specification. Many students provided almost word perfect answers.

Section B

Question 5

- 07.** The question required students to show their knowledge of arousal theories and the use of somatic stress management techniques. The responses produced a full range of marks with the majority answering both aspects of the question.

Large numbers were able to name and explain the various theories. The most common mistake occurred when the theory was not named and, as a result, students missed out on marks. Staff should be reminded of this point and reinforce it to students. The most popular answers were Drive Theory and Inverted U Theory, with very few including the Zone of Optimal Functioning as a separate theory. Large numbers discussed, in detail, the Catastrophe Theory, although no marks were awarded for this as it was not relevant in the context of the question. There were excellent examples and detailed knowledge of the Drive and Inverted U Theories, with the better answers discussing the impact of experience, skill level, nature of the task and personality.

Many students were able to access the somatic stress management section of the question. Good answers named the technique and gave clear descriptions concerning the methodology. Marks were not given if the technique was not named and a significant number of answers outlined a mixture of cognitive and somatic techniques. There was no credit for cognitive techniques as the question specifically stated 'somatic' methods.

Question 6

- 08.** The question required students to show their knowledge of Carron's antecedents with reference to cohesion within a group. Answers fell into two broad categories; those that knew the topic and those that did not. Good responses named the factor and gave a clear explanation. However, many answers failed to name a factor and simply provided vague descriptions.
- 09.** This section explored the nature of a favourable situation according to Fiedler. Whilst some students gained the higher marks, the majority only gained 1 or 2 marks, usually for naming the correct leadership style and stating favourable factors, including high ability performers, well-motivated or access to good resources. As with other parts of this paper, students often failed to be selective in their use of facts and simply wrote answers that included everything they could think of linked to the topic. Care must be used if this is the advice being given to students as marks can be lost if one part of their answer contradicts another, and poor exam technique makes it unclear for the examiner to determine whether or not the question is being answered correctly.

Question 7

- 10.** This question required students to discuss the disadvantages of the observation technique for assessing anxiety. It produced a very mixed set of answers, with the majority only achieving one mark and very few achieving full marks. This was somewhat surprising as there were a wide range of answers which were accessible on the mark scheme. The most common answers being 'subjective' and 'performer may behave differently if they know they are being watched.'
- 11.** This section focused on the use of personality questionnaires as a predictor of performance. It was poorly answered by the majority of students, who often misinterpreted the question and focused their answer on the validity of questionnaires in general rather than their results being used to predict performers who possess the traits or moods to be successful. Very few were able to structure their answer in the form of a discussion, outlining the view that personality forms part of a successful performer and the counter argument that there is no definitive proof either way. Most candidates failed to achieve any marks for this question.

Question 8

- 12.** The topic of goal setting has been asked in previous papers and the majority of students had a good understanding of this aspect of the specification, with many gaining maximum marks and often giving additional detail which could have been credited if the maximum had not already been reached. Those that failed to score well often listed the characteristics linked to SMARTER goals without providing an explanation. Students should be reminded that the command word 'explain' should direct them to give full descriptions and not just list key terms.
- 13.** The final psychology question required students to apply their knowledge of self-serving bias to motivation. As with previous questions answers fell into two broad categories; those that knew the topic and gained credit compared to those that received no marks. The weaker answers tended to focus anecdotal responses, such

as the captain giving motivational speeches, rather than making a link to the correct use of attributions.

Section C

Question 9

14. The third extended question explored the causes of spectator violence and how the law aims to protect spectators. As with the other sections of the paper the vast majority of students attempted both aspects of the question and showed a good understanding of the topic area. Many were able to provide a variety of reasons for spectator violence and scored well in this section. It should be noted that the question was not directly linked to 'hooliganism', but spectator violence in general. When a question includes the phrase 'such as', it is included to help direct the students' attention to the topic area but their answer can include other aspects of the topic.

The section on the law was generally sound with a number of students displaying an in-depth awareness of the strategies used. However, too many students did not read and analyse the question fully and, as a result, included irrelevant answers. The question focused on 'the law' rather than the actions of governing bodies and the clubs. Again staff should remind students that whilst questions may be similar to previous examination papers, there are subtle differences and past mark schemes should be used as a resource for modification rather than regurgitation when students see a buzz word in the question.

Question 10

15. This question focused on the contract to compete. Many students scored well, often achieving 2 or 3 marks. It was pleasing to see the application of knowledge with most answers providing the required examples of how the contract can be broken rather than simply stating the component parts of the concept. The weaker answers often cited 'cheating' which was too vague to be credited.
16. The historical content within this question allowed students to demonstrate their knowledge of factors contributing to the emergence of mass spectator sport. The question specifically asked students to 'explain' and it was pleasing to see a large number of responses which clearly showed an in-depth knowledge of the area. The better answers named a factor and described the impact on the increase in mass spectator attendance at sporting events, for example, better train networks allowed people to travel to the games. The weaker answers simply listed factors, for example, 'more time and money' with no explanation as to the contribution. These answers were too vague and gained no marks. The other common mistake was to not focus the answer specifically on spectators but merely the emergence of rational recreation and organised sport in general.

Question 11

17. The question explored knowledge of talent identification programmes. This was not a popular question and it was generally poorly answered. Whilst there are numerous organisations to study, and developing an understanding of the relationship between each is difficult, the basic understanding of the foundations for how elite athletes are talent spotted is a generic concept. Most answers were unable to progress beyond widespread testing and high quality scouts. Many answers tended to focus on how to

develop elite performers after they had been identified rather than the identification process itself.

- 18.** The organisation question explored the role of UK Sport. As with previous years, the knowledge of the function of organisations and their contribution to developing elite performers was limited. The most common answers students were able to provide were World Class Performance Programme and an explanation of the different stages. However, beyond these points there was a very limited knowledge and many answers were too vague, being descriptive in attempting to give general points rather than outline specific strategies. A number of answers also included an outline of talent identification programmes which was not worth credit as the question specifically stated 'other strategies' as Question 17 and 18 were linked.

Question 12

- 19.** The final question on the paper required students to discuss the impact of sponsorship and commercialisation on the spectator. Again it must be pointed out that students must take time to analyse the requirements of the question as many did not direct their answers to the spectators, but included reference to clubs, players and governing bodies. However, despite this there were a large number of good quality answers, which clearly outlined the advantages and disadvantages for the spectator. Staff should be commended on the continued improved quality of student responses to the 'discussion' questions. This can be seen as over 40% of students achieved 4 or more marks out of the 7 marks available. In general, students appeared to generally provide more positive points than negative points.

Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the [Results statistics](#) page of the AQA Website.

UMS conversion calculator www.aqa.org.uk/umsconversion