

Examiners' Report
June 2015

GCE Physical Education 6PE03 01

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Introduction

The examination paper was of a comparable structure to previous years. Learners found all questions accessible. A larger number of learners than usual used extra sheets which meant more exam papers needed to be scanned in. There were a couple of questions that did not score so well this year. On the whole, learners used their time appropriately.

Question 1 (a)

Learners were able to explain the principle of carbohydrate loading, with most gaining 2 or 3 marks out of the three available.

The most common responses that were awarded were:

- increasing the consumption of carbohydrates
- maximising glycogen stores in the week prior to competition.

The most able learners knew the mark scheme, and responded in clear sentences or bullet points.

The less able candidates sometimes described meals or mentioned 'eating carbohydrates', rather than referring to an increase in carbohydrates. The less able were not clear about the time frame for carbohydrate loading. Supercompensation was not always understood and many used the word on its own with no supporting explanation.

1 (a) Explain what is meant by **carbo-loading**.

(3)

Carbo-loading is a legal method of maximising glycogen stores in the muscles prior to an event through increasing the amount of carbohydrates intaken 2-3 days before an event.



ResultsPlus
Examiner Comments

A succinct, well set out response, scoring maximum marks.

Question 1 (b)

Learners on the whole knew some advantages and disadvantages, but even the most able did not know three of each. Most accessed two or three marks out of the available six.

The most common responses that were credited were:

Advantages

- increasing muscle glycogen or carbohydrate stores
- sustaining performance for longer

Disadvantages

- weight gain
- storage as fat

Some learners incorrectly discussed advantages that were not physiological. It is important for learners to underline key words in the question to focus their answer, and to notice that a six mark question would mean ideally three advantages and three disadvantages. The most able candidates set their answer out in a table with advantages and disadvantages outlined, ensuring they had at least three listed in each column.

(b) Discuss both advantages **and** disadvantages of carbo-loading for the short-term physiological preparation for sports performance.

(6)

An advantage of carbo-loading is that during the event the athlete will have a larger store of muscle glycogen. This means the athlete can perform at a higher intensity for a longer period of time & also means they don't have to ~~supplement~~ take extra food during their event, such as glucose gels or sports drinks.

A disadvantage of carbo-loading is that the athlete's ~~training will drop~~ standard of training will drop significantly during the period of time in which they deliberately lower their carbohydrate intake. They will have much less energy to train, which may lead to poor performance due to lower training standards.

There is also the possibility that the athlete will get the timing of the carbo-loading wrong, leading to poor performance during their event because of a lack of muscle glycogen.



ResultsPlus
Examiner Comments

Although this does not score maximum marks it is well laid out in two clear paragraphs of advantages and disadvantages.



ResultsPlus Examiner Tip

Always look whether the answer needs to be split into sections, and how many parts to the question there are.

Question 2 (a)

Most learners were able to explain mental rehearsal with the vast majority accessing a maximum score on this question. The most common responses were:

- thinking through movements in your mind
- planning for the event.

Those learners who had not learnt their key words well or who were confused by the terminology did not access the marks. Those who knew what it was often succinctly described it in one or two sentences with clear points made.

2 (a) Explain what is meant by **mental rehearsal**.

(2)

Mental rehearsal is the ability of an athlete to visualize or imagine event / actions, therefore it is a cognitive process / ~~psych~~ psychological. An example of mental rehearsal is visualizing the perfect technique or model, before you perform the action / movement.



ResultsPlus Examiner Comments

A clear, straightforward answer scoring maximum points.

Question 2 (b)

The majority of candidates scored 3 or 4 out of the possible 4 marks on this question. The most popular answers referred to anxiety and arousal. Those learners who did not score as well sometimes focused on one area, giving too much detail on that one issue rather than covering the four points that the mark scheme indicated. All points in the mark scheme were covered by learners during marking. This topic has been well understood and learned.

(b) Explain how mental rehearsal affects sports performance.

(4)

- helps athlete focus on previous successful performances
- used to reduce stress/anxiety - coping strategy.
- can improve confidence/self-efficacy.
- improve/increase concentration.
- will improve selective attention - gets athlete focused on task ahead and to block out media/crowd etc. - Cue utilisation.
- Helps athlete focus on opponents strengths/weaknesses.
- may only work for certain individuals.
- may be part of a ritual or pre-game routine. (Total for Question 2 = 6 marks)



ResultsPlus
Examiner Comments

A clear layout.



ResultsPlus
Examiner Tip

This candidate has set out in clear bullet points making it easy for the marker to check off the points made against the mark scheme, ensuring they don't miss any marks. This response scores maximum marks.

Question 3

Candidates found this topic difficult, and it has not been well understood in centres. There were lots of irrelevant answers about central governor and lactic acid. Those candidates who did know the topic were able to mention that muscle glycogen lasts 90 minutes. They knew that when glycogen runs out fat needs to be utilised and that PC runs out after 6-10 seconds. Unfortunately weaker learners were not able to access this question, often getting confused about what specifically was being asked. Weaker learners neglected PC as a fuel, and those who did know it was a fuel rarely linked it to drop in intensity. Too many answers were focused on lactic acid. Many responses lacked the precision and detail required to access higher marks.

Question 4

This question was generally well answered. A large majority of learners were able to access four out of the six marks and the best learners scored maximum marks. Weaker learners incorrectly focused on the heart and cardiovascular changes which would be associated with aerobic adaptations such as stroke volume and cardiac hypertrophy. Weaker candidates also did not link their answers, giving either adaptations with no link to performance or the link to performance with no adaptation at all which was not worthy of credit.

The most common answers to correctly score marks were:

- hypertrophy of muscles which increases power or strength
- increased number of fibres recruited which increases strength or power.

Candidates who score highly on this type of question set out their answers clearly to ensure that they tackle the two parts of the question. Some candidates tackled this with a clear table as per the mark scheme, which is good practice.

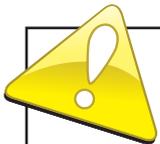
4 Explain how adaptations from anaerobic training improve sports performance.

An adaptation from anaerobic training the conversion of type I to type IIa and type IIa to type IIb muscle fibres. This will increase the power output of the performer meaning for example a shot putter could throw further. Also there is an increased level of muscle fibre recruitment allowing more fibres to work at the same time again increasing power output. In addition to this muscular hypertrophy will take place, meaning muscle size increases so the strength in the muscle becomes great again increasing power output. Bone density, ligament and tendon strength is also likely to increase as a result of the high stress nature meaning injuries become less likely.



ResultsPlus
Examiner Comments

This response is clearly set out and scores maximum points.



ResultsPlus
Examiner Tip

Make points clearly in all parts of the question.

Question 5

Learners typically accessed two marks on this question. The most common answers were an explanation of SMART targets and the fact that this increased motivation. Identification of strengths and weaknesses was also a common response. Weaker learners focused specifically on SMART without widening their answer to include other elements of the mark scheme. The weakest learners repeated the question wishing for a credit for saying 'set targets or goals' which was not credit worthy.

5 Discuss how goal setting is used in the long-term psychological preparation for sports performance.

Goal setting refers to the setting of goals or objectives personally or by a coach / individual. In long term psychological preparation goal setting is used through performance profiling and periodisation. Goal set should be SMART (specific, measurable, achievable, realistic, time bound). Through performance profiling, athletes can continually monitor any progress and identify areas of strength and weakness. Periodisation refers to a process of splitting up training to ~~best~~ focus ^{methods} on achieving key objectives. These are used in preparation by being able to ~~manage and~~ ^{monitor and} compare progress and ensure objectives are being fulfilled, aiding athletes motivation and focus.

(Total for Question 5 = 6 marks)



ResultsPlus
Examiner Comments

Although this response does not quite score maximum marks it makes a lot of the points in the mark scheme in a clear manner.

Question 6 (a)

Learners typically scored 2 out of a possible 3 marks on this question. Most learners knew that this was linked to Montreal, and were able to make the link with East Germany. Weaker learners were not clear on the dates for the Montreal Olympics and often answered question 6b instead by providing the examiner with an explanation of the system rather than giving reasons for the system.

6 Elite sports performance has been managed in different ways by different countries.

(a) Explain why Australia developed its elite sport policy in the early 1980s.

(3)

- Poor performance in 1976 Montreal Games - 7 medals.
- Has a huge sporting-frontier-adventure background.
- country willing to get behind a new system as old one was not working.
- Government prepared to invest money in state institutes and a new elite policy.
- Had seen the success achieved from East German model before.



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Examiner Comments

This response scores maximum marks and is well set out.

Question 6 (b)

This question was well answered and well learned. Learners often scored 6 out of the 6 marks available. Learners have a very good knowledge on this section of the syllabus and many were able to give more than the six points available. All points across the mark scheme were accessed by learners.

Question 7

This question was not well answered, with learners typically scoring two or three marks out of the eight available. The most common answers to be credited were:

- Team GB getting best ever results in London 2012
- Some sports got their funding increased when successful, whilst others, less successful, had funding cut
- Funding going into sports science has allowed a more professional approach of athletes
- Good use of examples

Typically learners did not go into the detail required or explain how the funding linked to performance. These linked points were missing for a detailed explanation. Weaker learners gave an answer about sports science and facilities but did not link them to funding, often describing systems such as UKSI but not linking this funding to performance. Many less successful learners used their whole answer to focus on one element of funding only, which limited the marks that they could score. Many weaker learners had misunderstood the differences between types of funding and how the Lottery funds sport in the UK.

Question 8

Learners often scored in Band 2 here, with a mark of 7 or 8 out of 20. The best answers explained performance profiling fully, giving examples, and discussing both the positives and negatives in detail. More typically, answers focused on either psychology or physiology, rather than both. Learners typically knew the term 'wagon wheel' but went on to list rather than explain. They tended to focus on a description of performance profiling rather than an analysis of it. There was too much focus on analysis tools in weaker essays rather than criticisms of performance profiling and an evaluation of it as a method. More able learners suggested that it needed to be discussed and agreed with the coach. Use of sporting examples in this question to support answers was generally poor.

Question 9

On this question learners typically scored in Band 2, eight marks being the most common score. Better answers included a full evaluation of all three areas of the specification including advantages and disadvantages, which were supported with relevant current examples. Top Band essays discussed the effectiveness of the strategies and the fact that there is a limitation on what can be achieved in this time period. Better essays included the technical language required. Weaker learners sometimes missed out an area from the specification, often focusing only on physiology or psychology. It is important that learners keep revisiting the specific focus of the question whilst writing and planning answers. Too many essays were caught up in description of the process rather than moving to critique and providing examples to support points.

Typical topics mentioned were warming up, imagery (and relaxation) strategies, the Haka, the team talk, and selection of kit.

Paper Summary

Based on their performance on this paper, candidates should:

- Ensure their writing is legible
- Use a black pen, if possible
- Employ coursework knowledge and knowledge of current issues
- Read the questions carefully
- Include a plan, introduction and conclusion for each essay
- Explain sporting examples in depth
- Use the correct technical terminology
- Set answers out clearly (e.g. in bullet points or tables)

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