

A-level

PHYSICAL EDUCATION

PHED3 – Optimising performance and evaluating contemporary issues
within sport

Report on the Examination

2580

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Optimising performance and evaluating contemporary issues within sport

General

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 as well as the standard deviation. The extended questions produced better quality answers. 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 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 recent years, 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 in schools and colleges 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 were aware of the requirements of the paper.

However, it must be pointed out that students must focus on ensuring that their handwriting is legible. On numerous occasions examiners attempted to read student answers but were unable to do so. Had valid points been made, these could not be credited because the writing was illegible.

Despite numerous reminders there are still a considerable number of rubric errors and students must be fully prepared so they understand how many questions are required to be attempted. It is of concern that a number of students lost up to 21 marks as they did not attempt one optional question per section.

Section A

Question 1

01

The first of the 14 mark questions focused on two aspects of the specification; the benefits of PNF training method and the importance of maintaining the correct water and electrolyte balance during performance. As expected there were a wide range of answers, but it was pleasing to see that a significant number of students accessed the highest marking band.

Many students were able to give a brief outline of the PNF technique but marks were lost due to a lack of precision in the answers, i.e. not providing a clear order of the technique just a broad outline. The higher quality answers gave a clear physiological explanation of the reasons PNF improves flexibility, often explaining the technique and the process in logical steps, highlighting excellent written skills. However, too often there was a lack of clear understanding of the function of the 'muscle spindles' and the 'golgi tendon organs'. Marks were lost due to inaccurate or vague outlines of their role in the process.

The maintenance of the correct water and electrolyte balance proved to be the more challenging part of the question. The most common points were increased blood viscosity, increased heart rate and increased body temperature. Many students explained the term 'electrolytes' and whilst on this occasion there was no credit for doing this, it is a good examination technique to adopt for the extended questions, as often credit may be given depending on the size of the mark scheme. The mark scheme will not exceed 24 points.

Question 2

02

The question tested student's knowledge of 'impulse' and they were required to sketch a graph showing the acceleration phase during a race. The quality of the answers varied considerably. It was possible to achieve maximum marks without labelling the axis correctly. A large number of students achieved full marks. Common mistakes included omitting units on the axis and drawing the positive impulse first.

03

The focus of the question was on the Sliding Filament Hypothesis, specifically the roles of tropomyosin and troponin during contraction. It should be noted that despite some staff thinking the same topic cannot be asked on successive papers, this is not the case, as indicated by this aspect of the specification being questioned two years running. Students generally knew this topic and scored well or only achieved one mark. Those that lost marks often confused the roles of tropomyosin and troponin or used the terms interchangeably.

04

This question was the first 'one mark' answer to appear on a PHED3 paper. Students were required to identify three factors that affected the distance an object travels. Many students achieved well, with common mistakes including size and shape of the object.

05

The biomechanics theme continued as students were required to draw vectors onto a parabolic curve at differing points. A wide range of answers were produced, with many gaining full marks. However, marks were lost most commonly for vector arrows not being attached to the curve and a negative vertical component shown at the highest point of flight.

06

The question tested students' knowledge of the energy systems. Most were able to identify the ATP-PC system but few referred to the initial source being 'stored ATP'. Too often marks were lost due to simply writing out the equations for a coupled reaction. The question clearly asks for an explanation. As a result marks could not be awarded. Some students also still confused 'energy systems' and 'energy sources'.

Question 4**07**

This appeared to be a straightforward question and many students achieved full marks. The most common answers were fats, carbohydrates and protein.

08

The focus of the question was thermoregulation of body temperature during exercise. Again the command word in the question required students to 'explain'. As a result marks were often lost because terms such as radiation, conduction, convection and evaporation were simply given with no further detail. Students accessed all parts of the mark scheme, but there was often a lack of clarity for the explanations, especially linked to conduction and convection.

Section B**Question 5****09**

The extended psychology question tested knowledge of the theories of aggression and strategies to develop assertive behaviour. It was pleasing to see that the vast majority of students named the relevant theories before explaining them. This was a noticeable improvement on previous examinations. However, there were still a significant number who failed to give the correct title and as a result lost marks. It should be noted that to be fair to all students this should be a priority for schools/colleges to encourage the use of correct terms. Many students achieved good marks on the theory section but as in previous years failed to give sufficient depth of answers in the applied strategies section. A common mistake involved too much depth being given to different stress management techniques rather than explain a range of strategies. As with Question 01, there appeared to be a higher number of answers falling into the top marking band, which it is pleasing to see and credit should be given to the schools and colleges in their preparation of students.

Question 6**10**

This question explored the students' knowledge of 'learned helplessness'. Whilst most were able to give an explanation linked to 'failure is inevitable', large numbers were unable to go beyond this point linking the concept to a lack of perceived ability. The better answers included reference to 'specific' and 'general learned helplessness' but this was limited.

11

The applied strategies to develop self-efficacy were generally well answered with many students accessing good marks. Students often lost marks because they did not explain terms or used them in the wrong context. For example, a number of answers approached the question from the perspective of the factors that contributed to self-efficacy and simply named the terms from Bandura's model rather than apply the knowledge to improving confidence.

Question 7**12**

The question required students to identify the characteristics of the 'peak flow experience'. There were a wide range of answers, many of which failed to be specific enough to gain marks and often merely described the characteristics of a 'skill'. The most common answer was 'effortless' but simply stating 'being in the zone' was too vague to be credited.

13

The focus of the question was on leadership and an explanation of Chelladurai's Model. This, as in previous years proved to be too difficult for the majority of students. Those who understand the model gained good marks but often the answers tended to be vague and lack specific detail. There appeared to be little understanding of the terminology and the relationship to develop effective performance.

Question 8**14**

The question explored students' knowledge of self-report questionnaires. Many were unable to name a suitable example and often lost the mark due to inaccurate naming of the specific questionnaire. The most common test to be named was SCAT. However, the majority of students gained maximum marks when explaining the disadvantages of this method of data collection.

15

This question tested knowledge of the interactionist theory of personality and how a coach could use it to alter the behaviour of a performer. This was generally poorly answered. Some students were able to provide details on the interactionist theory. Very few were able to suggest how a coach could identify aspects of personality and behaviour to be modified and achieve this via changing the environment during training to cause a change in behaviour. It should be noted that students need to know how to apply knowledge covered during this section of the course to improve performance, rather than simply learn the theoretical content.

Section C

Question 9

16

The third of the extended questions explored knowledge of the social and support factors that influence the development of elite performers in the UK. Many students were able to provide a range of answers concerning the support programmes but appeared less secure in their knowledge about the social factors that may impact on performers becoming involved with sport. It was pleasing to see more in-depth knowledge of initiatives such as the World Class Performance Pathway, with large numbers gaining additional credit for identifying the correct progressive stages.

Question 10

17

This question required students to compare the sporting values developed at the English Public Schools and the similarities with the modern Olympic Games. All points on the mark scheme were accessible but the most common points awarded included 'sportsmanship' and 'amateurism'. The concept of 'muscular Christianity' was mentioned regularly but was not relevant in this question.

18

The historical nature of this question required students to explain the influence of ex-public school boys on the development of rational recreation. Many answers contained the correct points but were not credited with marks because they failed to explain the actual impact of a particular group of old boys. For example, 'boys went on to become factory owners, army officer and join the clergy.' All of these points are correct but none highlight the impact e.g. establishment of teams.

Question 11

19

The decision of the IOC to allow professional performers to compete at the Olympic Games was the focus of this question. This was a popular question and most students were able to access high marks. The majority of answers tended to be awarded for the latter points on the mark scheme, i.e. higher standard of competition, greater spectator interest and generation of higher income as a result.

20

This question specifically highlighted the impact of increased media coverage on coaches. Whilst many answers discussed the positive and negative impacts on the coach, some students misunderstood the focus and related their answers to performers, which was not creditworthy. Students should be reminded that a 'discussion' question will always have a 'sub max' section and unless both sides of the argument are considered it will not be possible to access full marks.

Question 12

21

The topic of deviancy required students to provide a definition and example of positive and negative deviancy. Many students were able to provide suitable examples but the definitions were often too vague to be credited. There was also confusion at times between the concept of 'positive deviancy' and 'sportsmanship'.

22

The final question looked at the possible reasons for the low occurrence of spectator violence at the Olympic Games. This was generally not well answered; the most frequent marks awarded being 'family orientated' and 'less rivalry between countries'. Many students focused their answer on prevention of hooliganism, which was the focus of the question from the 2012 paper. It should be noted that whilst past mark schemes are a valuable source for preparation, students must be encouraged to read the question carefully and apply their knowledge rather than repeat previous mark schemes.

Mark Ranges and Award of Grades

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

Converting Marks into UMS marks

Convert raw marks into Uniform Mark Scale (UMS) marks by using the link below.

[UMS conversion calculator](#)