

# PHYSICAL EDUCATION

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Paper 0413/11  
Theory

## Key messages

Candidates should note the command word for each question as well as the number of marks available for to ensure they answer the questions in appropriate depth.

Candidates should consider examples carefully, ensuring they use these to show their understanding.

Weaker candidates could avoid repeating information already given in the question or the question itself as this can waste time.

## General comments

The majority of the candidates answered all questions and gained partial credit on most questions. There was no evidence to suggest that there was insufficient time to complete the paper. The standard of responses was generally good with answers clearly constructed in many cases by stronger candidates.

## Comments on specific questions

### Question 1

- (a) (i) Many candidates gained maximum credit for describing real risk and perceived risk. Some weaker candidates sometimes confused this with other syllabus areas.
- (ii) Strong candidates were generally able to suggest different examples of real risks for both canoeing and rock climbing. Some candidates were too vague with their responses.
- (iii) This was generally well-answered by the majority of candidates. Some weaker candidates repeated the same piece of protective equipment and therefore only scored partial credit.
- (b) Stronger candidates were able to suggest four different strategies. Most candidates scored partial credit for correctly suggesting one or more strategy to reduce the risk of injury in physical activities. Some weaker candidates repeated the use of protective equipment.

### Question 2

- (a) Many candidates gained credit for this question. Weaker candidates were often too vague for their justification particularly.
- (b) Most candidates gained credit for this question.
- (c) Some candidates gained partial credit for part of an explanation. Stronger candidates were usually able to fully explain how ill health can affect fitness.

### Question 3

Many candidates gained full credit for this question and were able to identify the personality type and give a description of a suitable characteristic. Weaker candidates sometimes repeated the characteristic listed in the question.

### Question 4

- (a) Stronger candidates were able to identify the muscle fibre type and demonstrated a good understanding of the characteristics of this fibre type by describing three different characteristics clearly. Some weaker candidates confused fast-twitch muscle fibres with slow-twitch muscle fibres, others stated names of muscles instead.
- (b) (i) Some candidates demonstrated a good understanding of why long-distance runners may use high-altitude training. Weaker candidates generally did not gain credit for their description as they were usually very vague with their use of terminology.
- (ii) Candidates who gained credit on (b)(i) tended to also gain at least some credit on this question and demonstrated an understanding of why long-distance runners may find it hard to use high-altitude training. Weaker candidates generally did not gain credit for all their suggestions as their responses were often vague or confused.

### Question 5

- (a) Many candidates gained credit for this question.
- (b) Many candidates gained credit for this question. Weaker candidates could sometimes not provide the precise principle of training.
- (c) Many candidates gained partial credit for identifying the two types of motivation. Stronger candidates were then usually able to apply these to a swimmer during a training programme. Some weaker candidates gave generic examples without applying it to a swimmer in a training programme.

### Question 6

- (a) (i) Many candidates gained full credit for this question.
- (ii) Most candidates gained partial credit for this question. Stronger candidates performed well on this question. Some weaker candidates were sometimes too vague for credit to be awarded for their descriptions.
- (b) Many candidates gained credit for this question.

### Question 7

- (a) Many candidates could state the names of all four muscles. Weaker responses sometimes included inappropriate muscles. Very weak candidates gave some terms that were not muscles.
- (b) (i) The majority of candidates gained credit for this question.
- (ii) Most candidates gained credit for this question. Some weaker candidates stated flexion and extension.
- (iii) The majority of candidates gained credit for this question. Some weaker candidates did not state a type of joint.
- (c) This was generally well answered with most candidates gaining at least partial credit. Weaker candidates were usually able to identify at least one component and attempt a description of the role of that component. Some other weak candidates repeated cartilage.

### Question 8

Many candidates scored partial credit. The description and example for coordination were typically good. Stronger candidates were usually able to provide clear descriptions and examples for reaction time and power. Some weak candidates repeated their description without application for the examples.

### Question 9

- (a) (i) Stronger candidates were able to offer various suggestions as to why overtraining should be avoided when preparing for the Olympic Games. Most candidates were able to gain at least partial credit for this question.
- (ii) Stronger candidates showed good understanding of why performers may use PEDs without giving physiological benefits. Weaker candidates sometimes gave physiological responses instead.
- (b) This was generally well-answered by the majority of candidates. Weaker candidates sometimes could not focus their answers on disadvantages for a performer of being caught.
- (c) Many candidates gained at least partial credit for this question. Weaker candidates sometimes repeated improved tourism or resorted to repetition of the same point.

### Question 10

- (a) Many candidates could reference at least one characteristic of this level. Some weaker candidates were too vague with their use of language.
- (b) Many candidates gained maximum credit for this question. Weaker candidates sometimes gave reference to stages of learning instead.
- (c) Many candidates gained full credit for this question.

### Question 11

- (a) Stronger candidates were usually able to give two well-expressed differences between aerobic and anaerobic respiration. Weaker candidates sometimes mixed up their knowledge about the two types of respiration or were unable to apply it well to make two clear differences.
- (b) Candidates that scored well in (a) generally scored well in this question. Some weaker candidates confused anaerobic examples for aerobic ones and others were too vague in their descriptions of the situations for credit to be awarded.

### Question 12

Most candidates gained credit for this question. Some weaker candidates showed imprecise learning.

### Question 13

- (a) Many candidates performed well on this question. Some weaker candidates did not seem to know the two types of anxiety. Sometimes weaker candidates gave somatic examples for cognitive anxiety and vice versa.
- (b) (i) Most candidates gained credit for this question.
- (ii) Many candidates gained partial credit for this question. Weaker candidates sometimes just repeated the control of arousal and anxiety from the question.

### Question 14

- (a) This was generally well answered by stronger candidates. Weaker candidates sometimes gave the bones found in the other body parts instead or used terms imprecisely.
- (b) (i) Most candidates gained credit for this question.

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- (ii) Most candidates gained credit for this question.
- (c) Many candidates were able to suggest one minor injury with a suitable cause and treatment for their named injury. Weaker candidates were sometimes too vague in their responses. Some candidates gave major injuries.

# PHYSICAL EDUCATION

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Paper 0413/12  
Theory

## **Key messages**

Candidates should note the number of marks allocated to questions to ensure they answer the question in appropriate depth.

Where questions require candidates to apply their understanding to a physical activity, candidates should avoid making unapplied responses.

Weaker candidates should avoid repetition, particularly repetition of the question to make best use of their time.

## **General comments**

The majority of candidates responded to all questions and there was no evidence to suggest that there was insufficient time to complete the paper. The standard of responses was generally good with answers clearly constructed in many cases.

## **Comments on specific questions**

### **Question 1**

- (a) Most candidates gained credit in this question.
- (b) The majority of candidates could identify the correct pathway.
- (c) Most candidates could state where this occurred.
- (d) Most candidates gained credit for identifying the correct muscles.
- (e) (i) Many candidates were able to gain partial credit for their responses. The most common errors were the omission of specific details in descriptions. Weaker candidates sometimes referred to oxygen rather than air.  
(ii) Some candidates achieved partial credit for stating that minute ventilation increases. Stronger candidates were able to gain full credit for describing how this increase occurred.

### **Question 2**

- (a) Candidates who applied the component of fitness to the two named cycling activities usually gained credit. Some weaker candidates provided only generic descriptions of the components of fitness and did not apply them to cycling.
- (b) Many candidates gained partial credit for identifying appropriate forces acting on the cyclist. Many candidates gave reasonable responses for how the identified forces affect the cyclist.
- (c) The strongest candidates tended to gain full credit. Some candidates gained partial credit for their suggestions. Suggestions of very weak candidates were often left underdeveloped and too vague to gain credit.
- (d) (i) This was generally a well-answered question with most candidates gaining at least partial credit. Stronger candidates were able to describe the process of blood doping in detail.

- (ii) Few weak candidates gained credit for this question. Explanation was often missing from these responses.

### Question 3

Many candidates gained at least partial credit for this question by describing appropriate characteristics for performers at foundation level and performance level. Weaker candidates sometimes provided descriptions of other topics.

### Question 4

The majority of candidates were able to identify three types of media coverage. Some candidates then provided examples. Stronger candidates were able to describe how each type enhanced the experience for the spectator.

### Question 5

- (a) (i) Stronger candidates were able to describe how weight training could improve performance of the cross-country runner and footballer well. Weaker candidates were typically able to give only a vague unapplied response.
- (ii) Many candidates gained credit by identifying an appropriate method of training.
- (b) (i) Most candidates gained credit for identifying aerobic respiration and anaerobic respiration. Stronger candidates usually gained full credit for justifying each type.
- (ii) Many candidates gained full credit for this question. Weaker candidates typically identified substance X, but were unable to identify substance Y.

### Question 6

- (a) Stronger candidates were able to achieve full credit here. Weaker candidates did not seem to fully understand what the test involved, with some confusing it with other tests.
- (b) Stronger candidates usually gained the majority of credit and most candidates gained partial credit. Some weak candidates described psychological effects for their answers instead.
- (c) (i) The majority of candidates were able to identify the runner.
- (ii) Most candidates gained partial credit by identifying two different types of motivation. Only the stronger candidates were able to explain how each type of motivation may influence the results of the Multi-Stage Fitness Test.

### Question 7

- (a) The majority of candidates gained credit for this question with succinct responses.
- (b) (i) Many candidates were able to gain credit for identifying the appropriate stages of learning.
- (ii) Most candidates gained partial credit for identifying at least one type of feedback. Weaker candidates found the justifications difficult to provide.
- (c) Many candidates were able to gain partial credit for identifying at least one characteristic of a skilled performance. Stronger candidates were able to identify three characteristics and provided an appropriate description from tennis. Weaker candidates sometimes provided generic descriptions only that were not related to tennis. Some weaker candidates resorted to repetition.

### Question 8

- (a) The majority of candidates achieved credit for this question.

- (b) Only stronger candidates gained full credit, but many candidates gained partial credit. The explanations of weaker candidates were sometimes left vague.

### Question 9

Most candidates gained partial credit for this question. Weaker candidates sometimes repeated a type of injury which was already given in the table. The question required different types of injury for credit. The description of the cause of the injury was often too vague or did not relate to the named activity for weaker candidates.

### Question 10

- (a) This was generally a well-answered question. The majority of candidates were able to gain at least partial credit.
- (b) The majority of candidates were able to identify each of the bones from the diagram. Many gave the classification of each bone.
- (c) Most candidates were able to achieve credit for freely movable. The other types generally proved to be more difficult.

### Question 11

- (a) Many candidates showed a good understanding of the circulatory system and gained credit for the description of the function of the right ventricle. Weaker candidates found this question difficult.
- (b) This was a well-answered question and most candidates gained credit, with many achieving full credit and showing precise application of knowledge.

# PHYSICAL EDUCATION

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Paper 0413/13  
Theory

## **Key messages**

Candidates should note the number of marks awarded in questions to ensure they answer the question in appropriate depth.

Where questions require the use of a physical activity in an answer, candidates should carefully consider their choice before beginning to answer.

Where questions require candidates to apply their understanding to a physical activity, candidates should avoid giving unapplied statements.

Weaker candidates should avoid repeating part of the question in their answer.

## **General comments**

The majority of candidates responded to all questions and there was no evidence to suggest that there was insufficient time to complete the paper. The standard of responses was generally good with answers clearly constructed in many cases.

## **Comments on specific questions**

### **Question 1**

- (a) Most candidates gained credit with many achieving full credit for identifying the three types of movement. Weaker candidates usually gained partial credit for identifying one or two types of movement.
- (b) Most candidates showed a good understanding of antagonistic muscle action and many candidates gained full credit.
- (c) (i) Many candidates provided appropriate examples of fixed and slightly movable joints.  
(ii) The majority of candidates gained credit for identifying two relevant bones.
- (d) Some weaker candidates only named one part of each continuum so were unable to gain credit for this part of the question. For many candidates there was usually sufficient information in the second part of the answer to gain credit for the justification.
- (e) Only stronger candidates gained credit by explaining when each type of respiration would be used during the race. Weaker candidates typically provided generic information only.

### **Question 2**

- (a) The majority of candidates gained full credit for identifying the three components of a lever.
- (b) Many candidates gained credit for drawing and labelling a third-class lever. Some weaker candidates did not label carefully.

### Question 3

- (a) (i) The majority of candidates gained credit for identifying the muscles from the diagram.
- (ii) Many candidates gained credit for identifying the type of isotonic contraction and many also provided a good description of this type muscle contraction.
- (iii) Most candidates gained credit for identifying the type of movement.
- (b) (i) This question was answered well. The majority of candidates seemed to read the question carefully and applied their knowledge well.
- (ii) Most candidates gained partial credit for describing some parts of the test. Stronger candidates usually gained full credit for a sufficiently detailed description of the test.

### Question 4

This question was answered well. Most candidates were able to provide sufficient descriptions of advantages and disadvantages of sponsorship for a performer. Many strong candidates gained full credit.

### Question 5

Most candidates gained credit for identifying the three remaining stages of the basic information processing model. Many candidates answered the output stage well, applying their answer to the named physical activity. The most common issue when answering the other stages was to give a very generic response that did not relate to the physical activity and how this stage was used.

### Question 6

Most candidates gained partial credit, with many gaining full credit. Candidates showed a good understanding of the topic and many provided a wide variety of appropriate suggestions.

### Question 7

Most candidates gained credit for identifying appropriate structures and functions. Some weaker candidates found identification of the right ventricle difficult. The function of the vena cava also proved difficult for weaker candidates.

### Question 8

This was generally a well-answered question with most candidates gaining full credit.

### Question 9

- (a) The majority of candidates gained full credit by identifying the two fitness tests used to measure cardiovascular endurance.
- (b) Most candidates gained credit for circling the false statement.
- (c) Many candidates gained full credit and showed a good understanding of the multiple reasons for fitness testing.

### Question 10

- (a) Most candidates gained at least partial credit with a number gaining full credit. Risks identified by many candidates showed excellent application of knowledge.
- (b) (i) Most candidates were able to identify appropriate components of fitness for water polo. Weaker candidates found it difficult to apply their named components of fitness to water polo and so some gave only a generic description of the component instead.
- (ii) Most candidates gained full credit for identifying factors that can affect  $\text{VO}_2 \text{ max}$  levels.

**Question 11**

- (a) Many candidates gained full credit. Weaker candidates sometimes gave only cognitive examples in their responses.
- (b) Many candidates gained credit. Some weaker candidates did not apply their answer to the effect on performance.
- (c) Stronger candidates were able to gain credit by demonstrating clearly their understanding of how different levels of arousal are required to perform specific skills. Some very weak candidates confused high/low levels of arousal with other syllabus topics.

**Question 12**

This was a well-answered question with the majority of candidates gaining full credit.

**Question 13**

- (a) The majority of candidates gained credit for this question. Candidates generally showed a good understanding of the benefits of goal setting and provided a wide variety of appropriate responses.
- (b) The majority of candidates gained at least partial credit with many gaining full credit. Some weaker candidates stated whether they felt the principle had been met or not but did not always provide sufficient detail in their explanation to gain credit.

**Question 14**

- (a) Stronger candidates usually gained credit by making careful statements about the movement of oxygen and carbon dioxide into/out of the blood. Weaker candidates sometimes provided answers that were left too vague for credit.
- (b) Most candidates gained credit for describing at least one characteristic of the alveoli. Many candidates gained full credit.

**Question 15**

Weaker candidates found this question difficult. Some candidates choose inappropriate activities. Some weaker candidates who chose appropriate activities did not provide sufficient detail in their justification to be awarded credit.

# PHYSICAL EDUCATION

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Paper 0413/02  
Coursework

## **Key messages**

Centres should use the PDF files from the samples database. Please do not convert these into word files.

At many centres, filmed evidence is usually best organised by activity with multiple candidates tagged, say against one football game. This allows a number of candidates at similar levels to be filmed at the same time and aids the process of moderation. This has the added benefit of reducing the amount of time many centres spend filming each activity.

Order of Merit forms and logs for all candidates submitting Weight Training for Fitness and Hill Walking should be uploaded to Submit for Assessment. Centres should ensure all pages have been uploaded.

The latest version of the forms should be used. For Track and Field and Competitive Swimming Order of Merits forms there are updated versions, these are marked with 'Version 2'.

Before uploading videos and documentation onto the platform, centres could save them with the name of the activity and suitable additions to the file names to aid identification. Sometimes forms and videos were sent without an appropriate name to match their content.

## **General comments**

The filmed evidence was generally clear. In activities such as tennis the action of the performer and the outcome of the skill could usually be seen. Some centres spent time inserting additional music and warm-up activities, which can result in elaborate films. This is not necessary and does not aid moderation.

Some centres made mistakes when converting times and distances into marks. The tables outline the minimum requirements for the mark.

## **Comments on specific activities**

### **Cross-country running**

The maps provided by centres were usually useful and could usually be verified. Centres should ensure that the elevation is indicated on the map and that candidates run the course stated on the map. The map should not be part of the filmed footage as this generally is low resolution etc. The map should be uploaded separately. Centres providing the best filmed evidence usually presented their candidates running different aspects of the course and often this resulted in around 15 minutes of footage.

### **Orienteering**

Maps should be provided of the course. Some centres inserted a picture of the course as part of the filmed evidence. Maps need to be uploaded onto the Submit for Assessment platform so that the course that is run can be verified. Hand-drawn maps are not usually appropriate as they do not provide the necessary scale and detail, e.g. walls, woods, streams, gradient/contour lines etc. Some candidates carried descriptions about the location of the check point. Supplying this information is seen as a low level of demand and does not require candidates to use the skills needed to achieve marks at the higher levels.

Some candidates ran over unsuitable terrain or were running on a circular course. When describing the course that the candidates will follow, it is not just the distance that describes the level of difficulty of the course. A sufficient number of control points, the frequency of the routes crossing, control points located well

away from footpaths and use of attack points that are away from distinctive features are needed when designing higher-level courses. Centres should provide a target time for the course and the control cards used by the candidates. Some submissions did not meet these requirements.

Some candidates were shown once and stated what skills they had used. When awarded marks in the higher levels, candidates need to be seen using these skills, e.g. reading the map, measuring distances and converting distances into time and the number of paces that will be taken.

### **Track and Field Athletics**

In the different events in Track and Field Athletics, candidates must adhere to the rules. For example, the shot must be held correctly throughout, and foul throws avoided.

Times for both the 100 and 200 meters achieved by each sample candidate should be filmed. Each one should be a continuous film from one angle. Some centres filmed candidates from several angles and joined clips together, making confirmation more difficult.

### **Games**

The level of demand must be appropriate for the ability of candidates and match the mark awarded. In some cases candidates were only filmed in very small-sided games or games where the opposition (and teammates) did not provide sufficient level of demand to enable skills to be performed at a level that supported the awarded marks. Centres are reminded to read the assessment conditions for each activity in the Coursework Guidelines Booklet. For stronger candidates, a school/club level of game or a game of a similar standard is required in some activities. For these candidates, the balance of the filmed evidence can be strongly in favour of applied situations with isolated/basic skills allocated only a short time.

### **Rounders**

The filmed evidence sent by centres generally focused on the ability of candidates to strike and field the ball. In some situations, the pitches used by the centres did not allow candidates to demonstrate the distance they could hit the ball before its first bounce. The best evidence of stronger candidates included tactical play within the recordings and advanced field placings.

### **Hill Walking**

The evidence provided for Hill Walking must include a detailed route card and logbook. The route cards should often cover several pages and be detailed enough to demonstrate each candidate's ability to use Naismith's rule on several occasions. Centres placing their candidates in the higher levels usually ensure that candidates are filmed applying skills in an interview and that these candidates complete one of the unforeseen situations. Candidates should walk in groups of four when possible and should use the route cards and the map throughout the duration of the walk. Stronger candidates generally did not rely on the route being drawn onto the map.