

# PHYSICAL EDUCATION

---

Paper 0413/11  
Theory

## **Key messages**

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

Candidates should select examples carefully, ensuring they are suitable.

Weaker candidates should ensure they read the questions carefully and ensure they do not repeat information already given in the question as this wastes time.

## **General comments**

The majority of the candidates answered 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 by stronger candidates.

## **Comments on specific questions**

### **Question 1**

- (a) Most candidates gained at least partial credit for describing the functions of a skeleton with the most common answers relating to protection and movement. Weaker candidates did not apply the function to a relevant example in judo or taekwondo.
- (b) The named type of injury part was answered well by most of the candidates. Some candidates were unable to include how the named injury could occur in combat activities.
- (c) Stronger candidates were able to suggest three different strategies. Weaker candidates either suggested fewer than three or offered repeats of responses already made.

### **Question 2**

- (a) (i) Most candidates gained at least partial credit for this question. Weaker candidates gave the names of leg bones or were too vague for responses linked to the scapula.
- (ii) Most candidates gained credit for this question.
- (iii) This was another well-answered question with many candidates gaining full credit. Weaker candidates tended not to obtain credit for the type of movement.
- (b) Most candidates gained credit for this question.
- (c) Some candidates demonstrated a good understanding of the function of ligaments. Other candidates gained at least partial credit for correctly describing one function of a ligament. Some weaker candidates described other syllabus terms instead.

### Question 3

- (a) Many candidates gained full credit for this question.
- (b) Many candidates were able to name the main muscle fibre type and at least one characteristic. Weaker candidates were often too vague with their responses about characteristics.
- (c) (i) The majority of candidates gained credit for this question.  
(ii) Stronger candidates were able to give the full equation. Weaker candidates generally wrote incorrect equations.

### Question 4

- (a) Some weaker candidates were unable to gain credit for this question and either drew an arrow in the incorrect direction or drew more than one arrow in different directions making their response too vague.
- (b) Stronger candidates demonstrated a good understanding of the characteristics of alveoli and were able to explain how they enabled efficient gaseous exchange. Weaker candidates generally did not gain credit for their explanation as they were often vague with their use of terminology.
- (c) Some candidates demonstrated a good understanding of these muscles and the function of these when breathing in at rest. Weaker candidates were sometimes unable to identify the muscles involved.

### Question 5

- (a) Many candidates gained full credit for this question.
- (b) (i) Stronger candidates were able to describe clear differences between arteries and veins. Weaker candidates often gave responses that did not show the differences between arteries and veins clearly.  
(ii) Most candidates gained credit for this question. Some weaker candidates were too vague for credit to be awarded.
- (c) Stronger candidates demonstrated good knowledge of the pathway of blood and structure of the heart and often gained full credit. Some weaker candidates confused the right and left sides of the heart.
- (d) Many candidates gained credit for this question. Candidates that did not gain credit often referred to stroke volume or gave responses associated with the respiratory system such as tidal volume and minute ventilation.

### Question 6

Stronger candidates tended to gain credit for this question.

### Question 7

- (a) Many candidates could identify the first word missing in the definition. Weaker candidates typically did not recall the second word.
- (b) Many candidates could suggest factors influencing the growth of leisure. Weaker candidates were sometimes too vague in their responses.

### Question 8

- (a) Most candidates gained partial credit for this question. Stronger candidates included a wide range of responses.

- (b)(i) Stronger candidates showed good understanding of muscular endurance and reaction time as well as describing an example in relation to a games activity. Some weaker candidates were too vague or did not apply the example correctly to a games activity.
- (ii) Only stronger candidates were able to give a full description of how to carry out a named test for muscular endurance. Some candidates gained credit for the name of the test but were then unable to describe the test. Some weaker candidates gave tests of other fitness components.
- (c) Stronger candidates showed good understanding of overload and overtraining and were able to provide relevant examples.

#### Question 9

Stronger candidates were able to provide relevant examples and description of a fartlek training session.

#### Question 10

- (a) Many candidates gained credit for this question. Some weaker candidates repeated responses that were already given in the question.
- (b) Weaker candidates sometimes gave physiological reasons rather than psychological reasons for warming up.
- (c) Stronger candidates were able to describe physiological benefits of a cool down. Weaker candidates were often too vague in their description.

#### Question 11

- (a)(i) Only stronger candidates were able to respond well to this question.
- (ii) Most candidates gained credit for this question.
- (b) Generally only the stronger candidates gained full credit in this question. Weaker candidates tended to confuse either their explanations or examples.
- (c) Most candidates gained credit for this question.

#### Question 12

- (a) Most candidates gained credit for this question. Weaker candidates named sports rather than a major global event.
- (b) Many candidates gained credit for their reasons why a nation may host a major global sporting event.

#### Question 13

- (a) Only stronger candidates were able to give sufficient explanations for this question. Weaker candidates tended not to be able to apply knowledge of the SMARTER principles well.
- (b) Only stronger candidates were able to give three suitable descriptions for this question.
- (c) Most candidates gained credit for this question.

#### Question 14

- (a) Many candidates were credited for their justification for gross and closed skills.
- (b)(i) Most candidates gave valid suggestions for this question.
- (ii) Many candidates gave good responses to the disadvantages of using prohibited performance-enhancing drugs. Weaker candidates tended to repeat a negative effect on health on occasion.

- (c) Many candidates gave good strategies concerning how an organising body could reduce the use of prohibited performance-enhancing drugs in sport. Weaker candidates were often too vague in their responses.

# PHYSICAL EDUCATION

---

Paper 0413/12  
Theory

## **Key messages**

Candidates should note the number of marks available for each question to ensure they answer the questions 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.

Weaker candidates should ensure that questions are read carefully and that responses are not repeated from the question.

## **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**

Most candidates gained credit with many achieving full credit for three different functions.

### **Question 2**

- (a) (i) Many candidates were able to describe some structural differences between arteries and veins. Weaker candidates usually described either the structure of arteries or the structure of veins rather than describing how they differed.
- (ii) Weaker candidates were generally unable to describe the role of haemoglobin clearly.
- (b) The majority of candidates were able to describe heart rate well. The descriptions from weaker candidates of cardiac output and stroke volume often lacked the required detail.

### **Question 3**

- (a) (i) Only some candidates referred clearly to oxygen being used or consumed in their answer. Stronger candidates also referred to time for full credit.
- (ii) This question was answered well by most candidates.
- (iii) Most candidates answered the question well with a number achieving full credit. Weaker candidates did not always describe the effect in their answer.
- (b) Few weak candidates appeared to fully understand what the Multi-Stage Fitness Test involved. Some candidates referred to the performance of a number of different exercises in their answer. Stronger candidates were able to achieve full credit.

#### Question 4

- (a) (i) Most candidates were able to place the letters relating to levels of arousal in an appropriate position.
- (ii) Most candidates were able to demonstrate some understanding of the three levels of arousal. Some weak candidates did not apply this understanding to their named activity and instead gave a generic description of each level of arousal. Some candidates chose an activity that proved difficult to write an explanation for and may have benefited from more careful consideration of their choice.
- (b) (i) Most candidates answered this question well.
- (ii) There was some confusion between physiological and psychological. Those candidates who understood these terms generally answered the question well.

#### Question 5

- (a) Most candidates were able to identify at least one appropriate component of fitness. Weaker candidates found it difficult to apply the named components of fitness to cricket.
- (b) Most candidates gained credit for identifying the Illinois Agility Test.

#### Question 6

- (a) (i) The majority of candidates gained credit for identifying an advantage of circuit training. Only stronger candidates were usually able to identify a suitable disadvantage.
- (ii) Most candidates gained partial credit by identifying a method of training. The description of the named method of training by weaker candidates often lacked the clarity needed for credit to be awarded.
- (b) Stronger candidates were able to provide the named phases of a warm up and also described using appropriate examples. Weaker candidates tended not to apply their knowledge well.

#### Question 7

Some weaker candidates did not answer this question. Many candidates were able to partly describe some characteristics of each stage of learning. These were generally only supported with an appropriate example from the named physical activity in the responses of stronger candidates.

#### Question 8

- (a) Most candidates gained credit for this question. Weaker candidates often did not relate their answers to the named physical activity. Generally only stronger candidates gained credit for a clear explanation for winding.
- (b) Most candidates gained at least partial credit for naming the components of RICE. Stronger candidates were able to give appropriate descriptions for each component. Some weaker candidates tended not to be able to respond clearly to the second part of the question.

#### Question 9

- (a) The majority of candidates gained credit for this question.
- (b) Most candidates identified gravity and air resistance as appropriate forces acting on the ball. Stronger candidates were also able to identify muscular force or force applied at release. Many candidates gave reasonable responses for how forces act on the ball.

#### Question 10

- (a) Many candidates were able to identify the gastrocnemius. Usually stronger candidates were able to identify the other muscle.

- (b) Only stronger candidates were able to precisely name the type of muscle contraction.
- (c) Most candidates gained partial credit for naming fast-twitch fibres. Responses then needed to be applied to the performance of the sprinter. Generally only the stronger candidates were able to provide sufficient detail in their explanations to gain full credit.

#### **Question 11**

Most candidates gained credit for this question, with some achieving full credit. An issue for some weaker candidates was not describing the benefits for each group in sufficient detail. The response for performers was generally the best understood. However, the benefits for spectators and officials were often too vaguely described by weaker candidates.

#### **Question 12**

This was a well answered question with many candidates showing a good understanding of the topic and achieving full credit. Stronger candidates were able to give a comprehensive range of advantages for a host nation. Weaker candidates sometimes repeated advantages previously covered.

#### **Question 13**

Only stronger candidates provided sufficient detail to gain credit. Weaker candidates often found this question challenging.

#### **Question 14**

- (a) Many candidates achieved credit for this question by identifying glucose and the use/non-use of oxygen for each energy system. An issue for some weaker candidates was the use of the incorrect equations.
- (b) Most candidates were able to describe what could have been an appropriate example in the named physical activity. However, the justification given was often too vague to achieve credit for weaker candidates.

#### **Question 15**

Many candidates were able to identify three appropriate factors. Weaker candidates were often too vague in their attempted explanations for how each factor may influence the performer's choice of activity.

#### **Question 16**

Most candidates achieved credit for their answers relating to input and decision making. The response for feedback was generally less effective for weaker candidates.

# PHYSICAL EDUCATION

---

Paper 0413/13  
Theory

## **Key messages**

Candidates should note the number of marks available for each question to ensure they answer the questions 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.

Weaker candidates should ensure that questions are read carefully and that responses are not repeated from the question.

## **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) Many candidates gained full credit for this question. Weaker candidates found the movements at the ankle challenging to identify.
- (b) Stronger candidates were able to identify the muscles involved. They were then able to answer the question fully in many cases. Weaker candidates were typically able to give only a generic description of antagonistic muscle action without correct identification of the muscles.

### **Question 2**

- (a) (i) This question was answered well by the majority of candidates.
- (ii) The majority of candidates identified maintaining hydration as a function of water.
- (b) The majority of candidates were able to state two suitable food sources.

### **Question 3**

- (a) Most candidates correctly identified the four levels of the sports development pyramid.
- (b) Many candidates gained at least partial credit for this question by suggesting appropriate characteristics for performers at this level.
- (c) The majority of candidates suggested some ways that schools can affect the number of participants at these levels. Stronger candidates tended to show a greater depth of understanding and typically supplied a wider breadth of answer.



#### Question 4

- (a) The majority of candidates gained full credit for this question.
- (b) Many candidates gained at least partial credit by referring to the removal of lactic acid.

#### Question 5

- (a) Many candidates were able to give a reasonable definition of fitness.
- (b) Most candidates were able to identify appropriate components of fitness. Weaker candidates often found it difficult to apply the named component of fitness to taekwondo and some gave a generic description of the component instead.
- (c) Most candidates gained partial credit by naming an appropriate test for speed. Stronger candidates were able to give a detailed description of the test to gain additional credit.
- (d) Many candidates gained full credit and showed a good understanding of the multiple reasons for fitness testing.

#### Question 6

The majority of candidates were able to identify two other types of guidance. Many candidates were able to describe suitable advantages for these.

#### Question 7

- (a) Most candidates were able to describe motivation appropriately.
- (b) Most candidates gained partial credit by naming two types of motivation. Weaker candidates found explaining an effect on training more difficult.

#### Question 8

- (a) Most candidates were able to name at least two appropriate types of PED. The benefit for performance was typically less well answered, with some candidates using inappropriate physical activities given their explanations.
- (b) Most candidates gained credit for this question. Weaker candidates sometimes referred to benefitting performance and could not seem to provide other reasons.
- (c) Many candidates gained full credit for this question.

#### Question 9

- (a) Most candidates were able to identify the three parts.
- (b) Candidates generally displayed a good understanding of the topic. Most candidates gained credit for naming at least one characteristic of the alveoli. The explanations were often given less well but stronger candidates still tended to achieve full credit for the question.
- (c) Weaker candidates found this question challenging. Their answers commonly lacked the required detail to gain credit.

#### Question 10

Most candidates achieved credit for identifying the muscle fibre types and the relevant types of respiration. Weaker candidates sometimes described generic benefits to performance and did not link these to their chosen physical activity.

**Question 11**

- (a) This question was answered well. Most candidates showed a good understanding of fartlek training.
- (b)(i) Many candidates achieved credit for this question.
  - (ii) Typically only stronger candidates were able to suggest an appropriate disadvantage.

**Question 12**

- (a) Most candidates achieved credit for completion of the chart and identifying the missing activity.
- (b) This question was answered well and most candidates were able to provide and explain two appropriate factors that may affect participation rates.

**Question 13**

Most candidates were able to identify at least one skill continuum.

# PHYSICAL EDUCATION

---

**Paper 0413/02**  
**Coursework**

## **Key messages**

Centres should read the assessment conditions for each physical activity prior to filming to ensure marks can be supported by the evidence.

For many activities at many centres, filmed evidence is best organised by activity with multiple candidates tagged, and not separately for each candidate.

Filmed evidence for each activity should be continuous and not a series of short clips.

Order of Merit Forms and logs should be uploaded at the component level of the Submit for Assessment platform and not against the individual candidates. Please upload typed copies where possible to ensure all content is legible.

## **General comments**

The overall standard of the coursework paperwork was good and there were few arithmetical mistakes by centres. Most centres used the sample database effectively.

The filmed evidence was generally clear and in activities such as tennis the action of the performer and the outcome of the skill could usually be seen. However, some centres submitted many small clips for each activity instead of linking the clips together in a continuous film.

Some centres seemed to have spent a lot of time inserting additional music and introductions to the activities, which resulted in elaborate films. However, this was not always helpful and generally did not aid moderation. It is important that the sound from the activities can be heard.

Before uploading films and documentation onto the platform please save them with the name of the activity and suitable other additions to the file names. Many forms and films from some centres were not labelled, making it difficult to find the activity that needed to be watched or to locate the paperwork that supported the activity.

## **Comments on specific activities**

### **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 on to the Submit for Assessment platform so the moderator can verify the course that is run. Hand-drawn maps are not usually appropriate as they do not provide the necessary scale and detail, e.g. contour lines, walls, woods, streams 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 terrain that was considered unsafe or were running on a circular course. The difficulty of the orienteering course is determined by the length of the course, the location of the check point, the layout of the control points, and the type and difficulty of obstacles on the course. Centres should provide a target time for the course and the control cards used by the candidates. Some centre submissions did not meet these requirements.

When describing the course that the candidates will follow, it is not just the distance that describes the level 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 the higher-level courses.

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

### **Games**

The level of demand must be appropriate for the ability of the candidate and match the mark awarded. An issue for some evidence was that candidates were only filmed in very small-sided games or games where the opposition (and team mates) did not provide sufficient level of demand to enable skills to be performed at a level that supported the awarded marks. Please read the assessment conditions for each activity in the Coursework Guidelines booklet. This will help to determine the best activities that will support the marks awarded. For higher marked candidates, a school/club level game or game of a similar standard is required. For higher marked candidates, the balance of the filmed evidence can be strongly in favour of applied situations with isolated/basic skills allocated only a short time.

### **Weight Training**

Many centres submitted logs and filmed evidence. Good evidence clearly showed the technique and included a summary of the exercise where candidates applied theoretical knowledge. Weaker candidates needed a greater understanding of the principles that underpin this activity. All sections of the log should be completed, and more than one sheet is required to provide an effective programme. The Coursework Guidelines booklet states that candidates should be filmed giving a brief verbal explanation of the exercise. Candidates should not provide a running commentary over the film they have submitted. Good filmed evidence included the optimum performances and the candidate being able to demonstrate the effect the exercise would have on their performance.

### **Cross-country running**

Maps must be used as evidence of the cross-country course, with a scale. It should be possible to verify the height climbed and distance covered. The best evidence included scales to confirm inclines rather than simply annotations. The course must be on open terrain and should not include artificial surfaces, roads or footpaths (unless they are being crossed). Some centres provided very short evidence for this activity. Centres that submitted the best evidence of stronger candidates provided around 15 minutes of evidence and showed the stop watch at the start and the end of the course to support marks awarded.

### **Track and field athletics**

When measuring the different activities in track and field athletics candidates must adhere to the official rules of that activity. The shot must be held correctly throughout, and it is a foul throw if a candidate walks out of the front of the throwing area etc.

Times for both the 100 and 200 meters achieved by each candidate must 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 difficult.