

# **Cambridge International AS & A Level**

## PHYSICAL EDUCATION

Paper 3

9396/31

May/June 2022

2 hours 30 minutes

You must answer on the enclosed answer booklet.

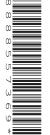
You will need: Answer booklet (enclosed)

#### INSTRUCTIONS

- Answer all questions.
- Follow the instructions on the front cover of the answer booklet. If you need additional answer paper, ask the invigilator for a continuation booklet.
- You may use a calculator. •
- You should show all your working and use appropriate units. •

#### **INFORMATION**

- The total mark for this paper is 90.
- The number of marks for each question or part question is shown in brackets [].



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#### Answer all questions.

## Section A: Exercise and sport physiology

- 1 (a) (i) Define the following energy concepts:
  - work
  - power.

[2]

- (ii) State a unit for each of the following:
  - work
  - power.

[2]

- (b) Describe the energy system that uses creatine kinase as the controlling enzyme. [4]
- (c) Outline how myoglobin stores are replenished during the recovery process. [2]
- (d) Describe, using a practical example of each, the following principles of training:
  - specificity
  - progression
  - reversibility.

[6]

- (e) Some performers have a high aerobic capacity due to a strong and healthy cardiovascular system.
  - (i) Other than features of the cardiovascular system and training, describe how **two** factors may affect aerobic capacity. [4]
  - (ii) Describe physiological adaptations of the cardiovascular system that take place after a two-month period of aerobic training. [5]
  - (iii) Protein is one type of food fuel that may be used during aerobic work.

State <b>two</b> other types of food fuel used during aerobic work.	[2]
otate two other types of food fuel used during acrobic work.	[4]

(f) Describe the process of carbohydrate loading before an endurance event. [3]

[Total: 30]

# Section B: Psychology of sport performance

2	(a)	Describe the interactionist approach to personality development. [3]
	(b)	Outline what is meant by the following personality traits:
		<ul> <li>introversion</li> <li>stability.</li> </ul>
	(c)	A sports performer shows a negative attitude to strength training.
		Describe how a coach could change this negative attitude to a positive attitude. [5]
	(d)	Sports coaches may adopt different leadership styles depending on the situation.
		(i) Compare autocratic and democratic leadership styles. [4]
		(ii) Suggest when a laissez-faire leadership style may be the best approach for a group of performers.
	(e)	Explain, using a practical example of each, what is meant by the following:
		<ul> <li>a process goal</li> <li>a performance goal</li> <li>a product goal.</li> </ul>
	(f)	Describe what is meant by each of the following:
		<ul> <li>trait sports confidence</li> <li>state sports confidence.</li> </ul>
	(g)	Easterbrook suggested that cue utilisation was affected by the level of arousal of a performer.
		Describe Easterbrook's cue-utilisation theory. [3]
	(h)	Suggest reasons why some athletes experience a decline in performance when an audience is present. [4]
		[Total: 30]

#### Section C: Olympic Games: a global perspective

**3** (a) The Olympic Games is an international athletic festival that acts as a social force to transcend political barriers.

	Describe other ways that the Olympic Games acts as a social force.	[4]		
(b)	Outline the organisation of the International Olympic Committee (IOC).	[4]		
(c)	Some countries have chosen <b>not</b> to attend some Olympic Games for political reasons. This is known as a boycott.			
	For each of the following Olympic Games, state a different country that boycotted. Outline a political reason for each boycott.			
	(i) 1976 Montreal Olympic Games	[2]		
	(ii) 1980 Moscow Olympic Games	[2]		
	(iii) 1984 Los Angeles Olympic Games	[2]		
(d)	d) Other than boycotts, suggest how nations have used political power to determine who can compete in the Olympic Games. [4]			
(e)	Suggest possible disadvantages to the local population of hosting the Olympic Games.	[4]		
(f)	Describe the benefits for a country of hosting a successful Olympic Games.	[4]		
(g)	Describe the traditional definition of amateurism as a noble concept.	[4]		
	[Total:	301		

[Total: 30]

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