

OCR

Oxford Cambridge and RSA

Friday 18 May 2018 – Morning**AS GCE PHYSICAL EDUCATION****G451/01** An Introduction to Physical Education

Candidates answer on the Question Paper.

OCR supplied materials:

None

Other materials required:

None

Duration: 2 hours

Candidate forename		Candidate surname	
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Centre number						Candidate number				
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INSTRUCTIONS TO CANDIDATES

- Write your name, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
- Use black ink. HB pencil may be used for graphs and diagrams only.
- Answer **all** parts of the question in each of Sections A, B and C.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Write your answer to each question in the space provided. If additional space is required, you should use the lined page(s) at the end of this booklet. The question number(s) must be clearly shown.
- Do **not** write in the barcodes.

INFORMATION FOR CANDIDATES

- The number of marks is given in brackets [] at the end of each question or part question.
- The total number of marks for this paper is **90**.
- The quality of your written communication will be assessed in questions that are indicated accordingly (*).
- This document consists of **16** pages. Any blank pages are indicated.

SECTION A – Anatomy and Physiology

Answer **all** parts of the question.

- 1 (a) Fig. 1 shows an athlete hurdling.

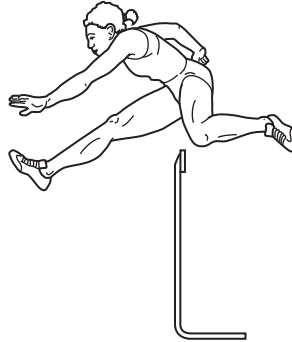


Fig. 1

Complete the table below for the athlete's knee joint on the trailing leg.

[4]

Joint	Joint type	Movement	Agonist	Antagonist	Type of muscular contraction
Knee				Rectus Femoris	

- (b) Define and apply **two** types of motion involved for the hurdler during a race.

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..... **[4]**

(c) (i) Describe atherosclerosis.

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..... [3]

(ii) Explain how participation in regular physical exercise can help prevent atherosclerosis.

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..... [3]

(d) (i) Define blood pressure and give a normal resting value.

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..... [2]

(ii) Explain the changes that occur to blood pressure:

During light exercise

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..... [2]

For a person with hypertension

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..... [2]

(e)* Describe the respiratory responses to exercise which allow more oxygen to be delivered to the working muscles.

Explain why altitude would reduce endurance performance during exercise.

[10]

[illegible]

This image shows a full page of white paper with horizontal dashed lines, typical of primary school writing paper. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

SECTION B – Acquiring Movement Skills

Answer **all** parts of the question.

- 2 (a) Choose a movement skill related to sport and identify **two** different gross motor abilities and **two** different psychomotor abilities that are required for the skill to be performed effectively.

Gross motor abilities

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Psychomotor abilities

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[4]

- (b) Drive reduction is a term that relates to a decrease in motivation.
Explain how drive reduction can affect maintaining a balanced, active and healthy lifestyle.

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..... **[4]**

The diagram illustrates the human motor control system as a closed-loop process. At the center is the **ENVIRONMENT**. A dashed line represents the **Body boundary**. Inside this boundary, the system is organized into three main functional areas: **Sense organs**, **Central mechanisms**, and **Muscular system**. The **Central mechanisms** are further divided into **Perceptual Mechanisms**, **Translatory Mechanisms**, and **Effector Mechanisms**. The flow of information is as follows: **Input data from display** (from the environment) enters the **Sense organs**, which send signals to the **Perceptual Mechanisms**. These then pass through the **Translatory Mechanisms** to the **Effector Mechanisms**, which control the **Muscular system**. The **Muscular system** produces **Output data**, which is sent back to the environment as **Feedback data**. Arrows indicate the direction of information flow throughout the system.

Describe how the central mechanisms affect the performance of movement skills.

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- (d) (i) Giving **two** examples, describe open loop control when performing movement skills.

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- (ii) Describe how open loop control can be linked to the autonomous phase of learning.

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SECTION C – Socio-Cultural Studies relating to participation in physical activity

Answer **all** parts of the question.

- 3 (a)** Outdoor education is a valuable part of a school Physical Education programme but there are risks.

- (i)** Explain the difference between a real risk and a perceived risk.

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- (ii)** Apart from risk, describe the constraints that might prevent a school from being able to offer their students an outdoor education programme.

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- (b)** Media coverage of sport can both educate and entertain people.

Using examples, describe **two** other roles of the media in sport.

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..... **[4]**

12

- (c) Describe **three** possible solutions to reduce player violence and **three** possible solutions to reduce spectator violence in sport.

Player violence

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Spectator violence

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[6]

- (d) Explain how the game of Australian rules football has developed.

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[5]

[illegible]

END OF QUESTION PAPER

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