



**ADVANCED SUBSIDIARY GCE  
PHYSICAL EDUCATION**  
An Introduction to Physical Education

**G451**

Candidates answer on the Question Paper

**OCR Supplied Materials:**  
None

**Other Materials Required:**  
None

**Tuesday 19 January 2010  
Morning**

**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 clearly in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully and make sure that you know what you have to do before starting your answer.
- There are three Sections in this paper.
- Answer **all** parts of the question in each of Sections A, B and C.
- Do **not** write in the bar codes.

**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**

Answer **all** parts of the question.

**Anatomy and Physiology**

- 1 (a) Fig. 1 shows an athlete performing a bicep curl. Use your anatomical and physiological knowledge to complete the table below for the athlete's elbow during the **upward** phase of the bicep curl.



**Fig. 1**

Joint	Joint Type	Movement	Agonist	Antagonist
Elbow			Biceps Brachii	

What type of muscle contraction is occurring in the biceps brachii during the **downward** phase of the bicep curl?

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Name **one** muscle in the trunk acting to maintain good posture and core stability during the biceps curl.

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(d) Fig 2. shows the changes in heart rate of an athlete during a sub-maximal exercise session. Describe the neural mechanisms which cause heart rate to change during exercise.

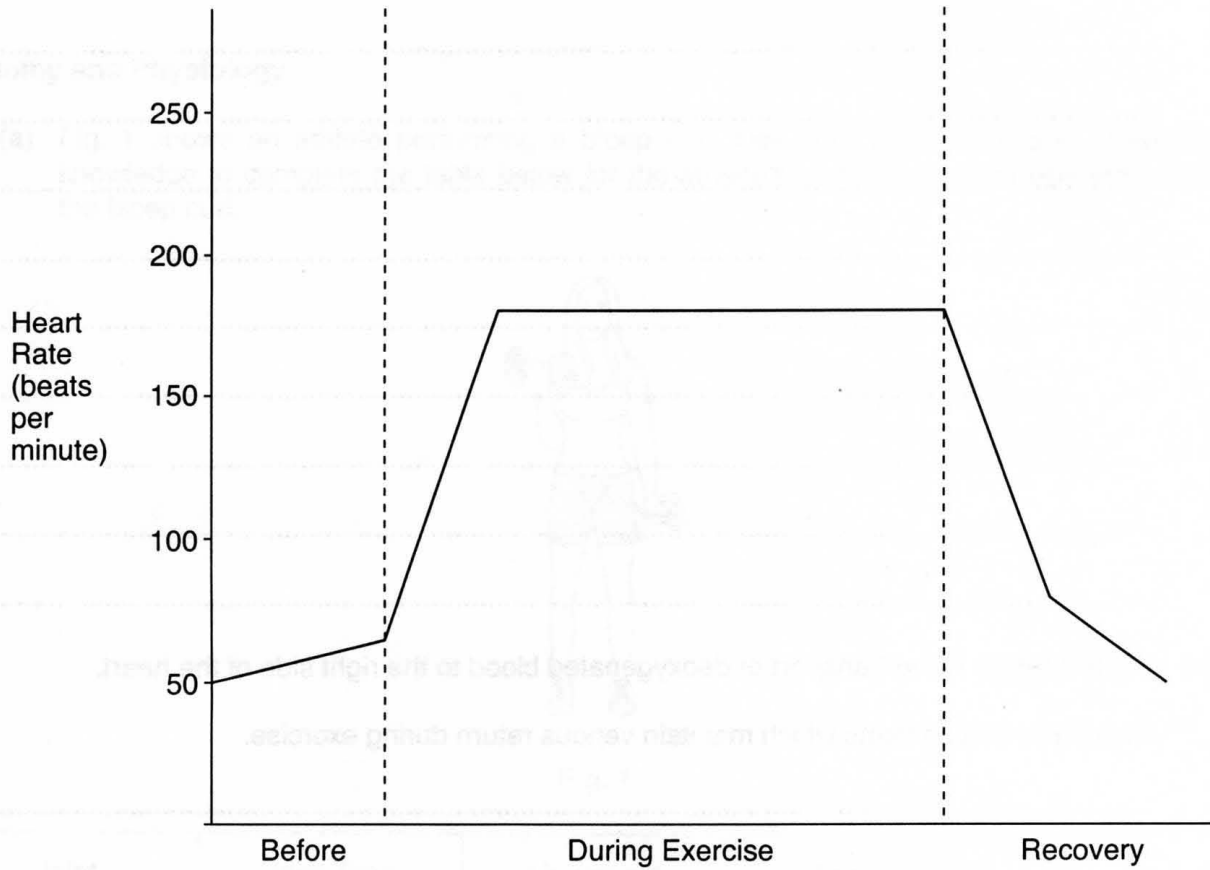


Fig. 2

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**Section B**

Answer **all** parts of the question.

**Acquiring Movement Skills**

2 (a) Identify a motor skill in sport and justify its classification on the open-closed continuum.  
Explain which practice methods would be most appropriate for this skill.

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(b) Explain the role of mental practice in the performance of movement skills.

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(c) Learning and performing movement skills often involves the use of the memory process. Describe the multi-store memory process when performing movement skills.

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(d) Using the Inverted U theory **and** a practical example explain how levels of arousal can affect the performance of movement skills.

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**Section C**

Answer all parts of the question.

**Socio-Cultural studies relating to participation in physical activity**

3 (a) It is widely accepted that physical activity is part of a healthy lifestyle. However, people lead more sedentary lifestyles now than in the past.

(i) Identify reasons for increasingly sedentary lifestyle in the UK today.

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(ii) What are the physical activity recommendations for active lifestyles?

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(b) Identify **one** difference between Outdoor Recreation and Outdoor Education and explain why there is limited regular participation in Outdoor Education by young people.

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(c) In the UK various organisations are involved with physical activity.

Describe the work of **both**:

Home country organisations (such as Sport England):

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The British Olympic Association (BOA):

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[Total: 30]

