THIS IS A NEW SPECIFICATION

OCR
RECOGNISING ACHIEVEMENT

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	

Centre Number						Candidate Number				

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.

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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.

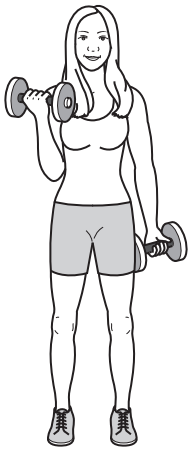

Fig. 1

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.

..... **[5]**

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(b) Using a serve in tennis, explain Newton's three laws of motion.

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(c) Venous return is the transport of deoxygenated blood to the right side of the heart.

Give **three** mechanisms which maintain venous return during exercise.

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An increase in venous return can improve performance.

Explain how the increase in blood flow affects cardiac output.

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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.

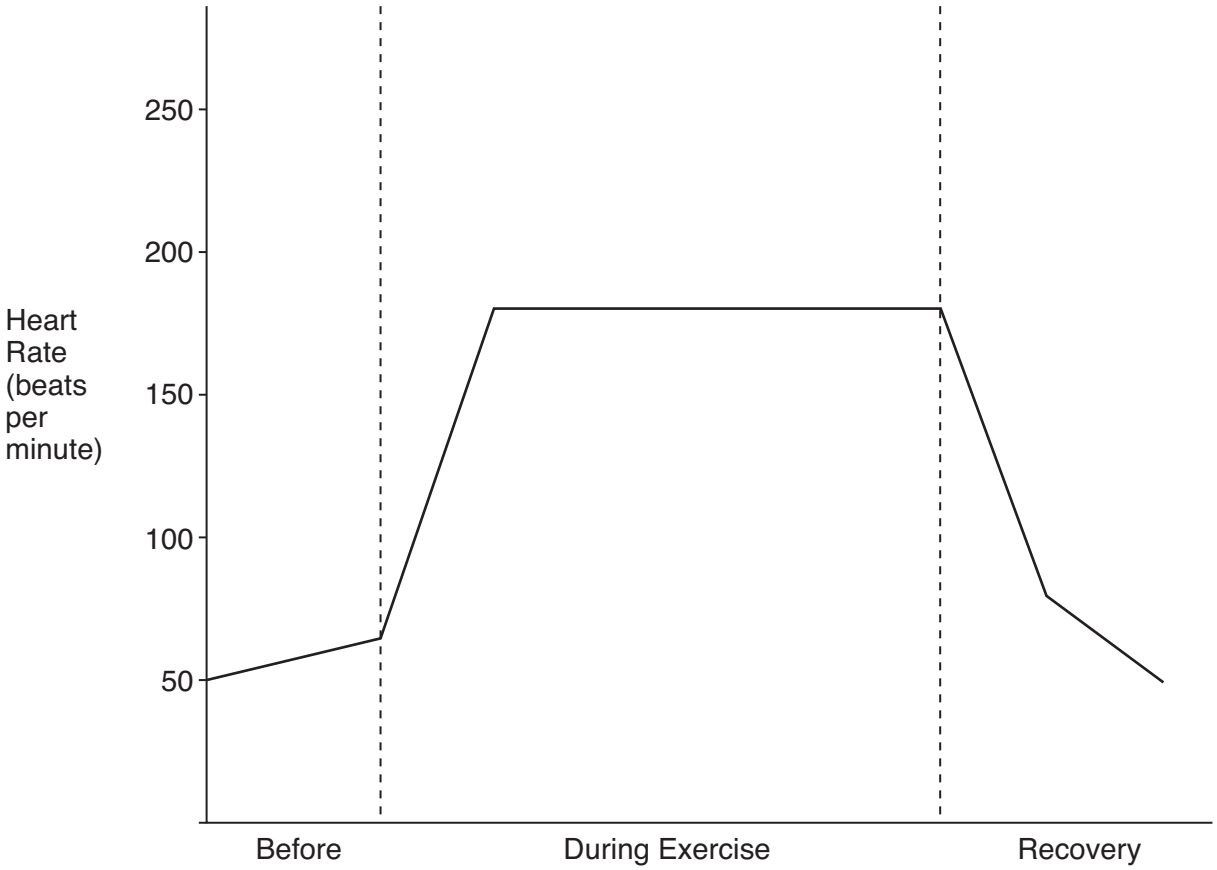

Fig. 2

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(e)* Discuss the positive and negative effects on the skeletal system of young people performing:

- contact sports
- high impact sports
- activities involving repetitive actions

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[Total: 30]

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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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(e)* Using practical examples, explain the process of observational learning when it is used for acquiring movement skills **and** learning to follow an active and healthy lifestyle. Refer to Bandura's model in your answer.

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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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(d) The game of American football is extremely popular in the USA.

Give reasons for the violence and commercialism associated with American Football.

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(e)* Discuss social and cultural factors that affect participation in physical activity in the UK.

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..... **[10]**

[Total: 30]

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