

Tuesday 15 January 2013 – Morning

AS GCE PHYSICAL EDUCATION

G451/01 An Introduction to Physical Education

* G 4 3 0 7 5 0 1 1 3 *

Candidates answer on the Question Paper.

OCR supplied materials:

None

Duration: 2 hours

Other materials required:

None



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. Additional paper may be used if necessary but you must clearly show your candidate number, centre number and question number(s).
- 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 – Anatomy and Physiology

Answer **all** parts of the question

- 1 (a)** Fig. 1 shows an athlete performing an upright row.

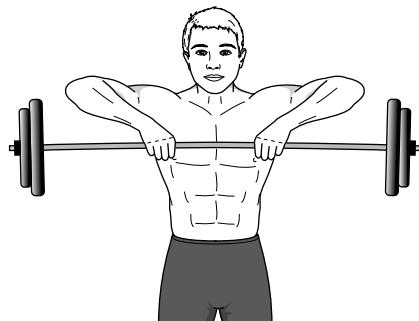


Fig. 1

- (i)** Complete the table below for the athlete's shoulder joint whilst the bar is being raised. [4]

Joint	Joint Type	Movement	Agonist	Antagonist	Type of Muscular Contraction
Shoulder		Abduction			

- (ii)** The upright row requires a strong force of contraction.

Which is the main muscle fibre type recruited during this exercise?

..... [1]

- (b) (i)** Identify **two** physiological factors which affect joint stability.

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..... [2]

- (ii)** Outline **three** ways in which physical activity can improve joint stability.

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..... [3]

- (c) Describe how the heart's conduction system controls the contraction and relaxation phases of the cardiac cycle.

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..... [5]

- (d) (i) Outline how oxygen is transported in the blood.

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..... [2]

- (ii) Describe the process of oxygen diffusion at the alveoli during exercise.

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..... [3]

(e)* Describe the **three** types of motion created by a performer in a tennis serve.

Define Newton's Laws of Motion.

Explain how Newton's Laws and the application of force can be applied to a tennis serve. [10]

SECTION B – Acquiring Movement Skills

Answer **all** parts of the question

- 2 (a) Using a practical example, describe open loop control when performing a movement skill.

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..... [4]

- (b) Part, whole, progressive part and whole-part-whole are all methods of practice.

Describe each of these **four** methods of practising movement skills, giving a practical example for each.

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..... [4]

- (c) Describe the characteristics of each of the **three** named phases of learning movement skills.

Named phase:

Characteristics:

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Named phase:

Characteristics:

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Named phase:

Characteristics:

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[6]

- (d) Describe the **five** different types of transfer that can occur when learning movement skills.

Give **one** way in which transfer of learning positively affects the development of schema.

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[6]

- (e)*** Discuss how operant conditioning could be applied to young people learning movement skills, and adopting a balanced, active, healthy lifestyle. [10]

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

Answer **all** parts of the question

- 3 (a) Explain the possible factors which can affect participation in physical activity by people with disabilities.

[5]

[5]

- (b)** Describe how the following organisations help to increase sporting excellence:

- UK Sport

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- the British Olympic Association.

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[5]

- (c) Outline the nature of sport in the USA.

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..... [5]

- (d) How did Public Schools help to promote and organise sports and games in the nineteenth century?

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..... [5]

- (e)* Critically evaluate the impact of the media on sport **and** on balanced, active and healthy lifestyles. [10]

END OF QUESTION PAPER

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