

**OXFORD CAMBRIDGE AND RSA EXAMINATIONS
AS GCE**

G451/01

PHYSICAL EDUCATION

An Introduction to Physical Education

TUESDAY 15 JANUARY 2013: Morning

DURATION: 2 hours

plus your additional time allowance

MODIFIED ENLARGED 18pt

Candidate forename		Candidate surname	
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Centre number						Candidate number				
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Candidates answer on the Question Paper.

OCR SUPPLIED MATERIALS:

None

OTHER MATERIALS REQUIRED:

None

READ INSTRUCTIONS OVERLEAF

INSTRUCTIONS TO CANDIDATES

- **Write your name, centre number and candidate number in the boxes on the first page. 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).**

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 (*).**

SECTION A – ANATOMY AND PHYSIOLOGY

Answer ALL parts of the question

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

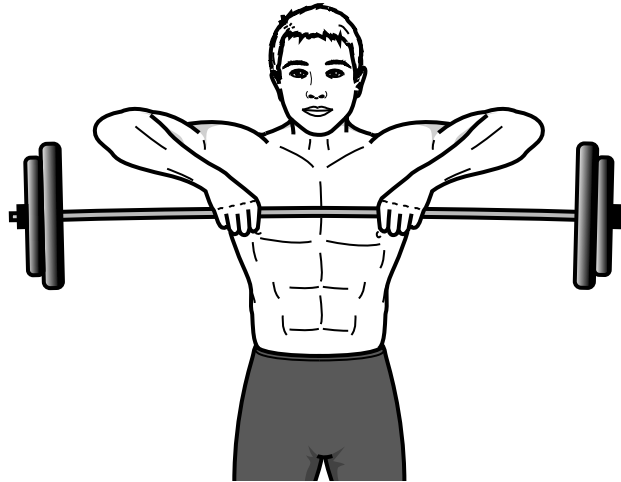


FIG. 1

- (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.

[2]

(ii) Outline THREE ways in which physical activity can improve joint stability.

[3]

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

[5]

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

[2]

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

[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]

[illegible]

[illegible]

[illegible]

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.**

[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.

[4]

(c) Describe the characteristics of each of the THREE named phases of learning movement skills.

NAMED PHASE: _____

CHARACTERISTICS: _____

NAMED PHASE: _____

CHARACTERISTICS: _____

NAMED PHASE: _____

CHARACTERISTICS: _____

_____ [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.

[illegible]

[illegible]

[illegible]

[illegible]

**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]

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

- **UK Sport**

- **the British Olympic Association.**

[5]

[illegible]

20

[illegible]

[10]

[illegible]

[illegible]

[illegible]

END OF QUESTION PAPER

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