



**Friday 6 June 2014 – 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. 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.

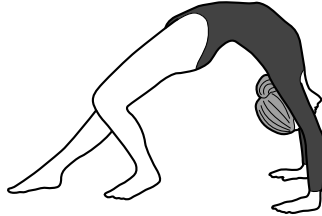
### INFORMATION FOR CANDIDATES

- 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 a gymnast in a bridge position.



**Fig. 1**

(i) Complete the table below for the gymnast's spine.

Joint	Joint Type	Movement	Agonist	Antagonist
Spine				

[4]

(ii) Name **one** muscle involved in the core stability of the spine.

..... [1]

(b) (i) Explain why the position held in a bridge is more stable than in a handstand.

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(ii) Describe angular motion and give an example from sport.

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(c) (i) Give an average value for cardiac output for a performer at rest and during maximal exercise.

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..... [2]

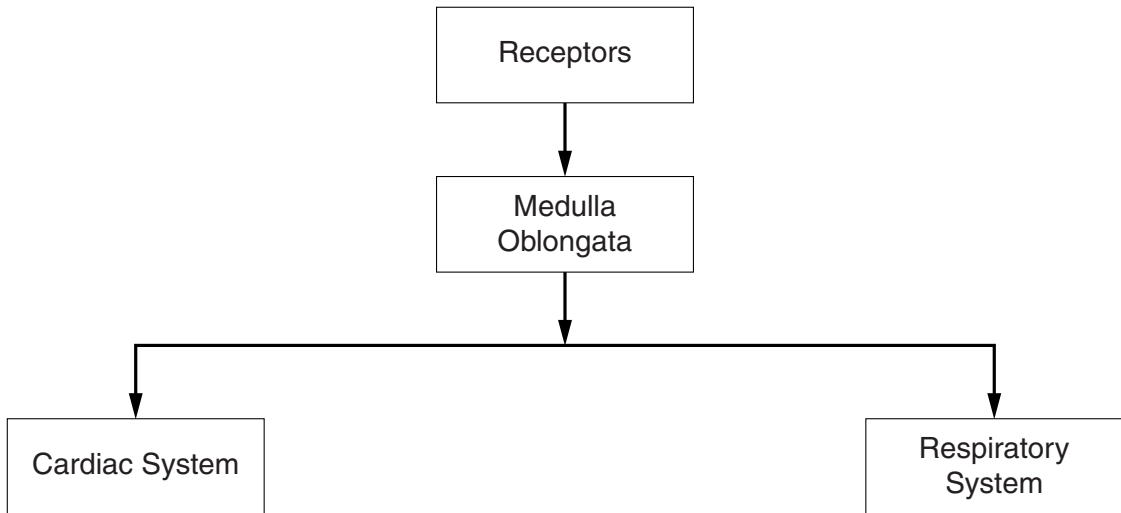
(ii) Describe how the conduction system of the heart controls the systolic phase of the cardiac cycle.

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(d) Describe the mechanics of breathing for inspiration at rest.

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..... [4]

(e)\*



**Fig. 2**

Describe neural factors which regulate the cardiac and respiratory systems shown in Fig. 2 during exercise.

Using Fig. 2, explain how these systems affect an endurance performer. **[10]**

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**SECTION B – Acquiring Movement Skills**

Answer **all** parts of the question

- 2 (a) Giving a practical example for each, explain why a skill can be classified as either self paced or externally paced.

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- (b) Quick reactions can be affected by factors such as the psychological refractory period.  
Explain the psychological refractory period.

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

Answer **all** parts of the question

**3 (a) (i)** Define Physical Education.

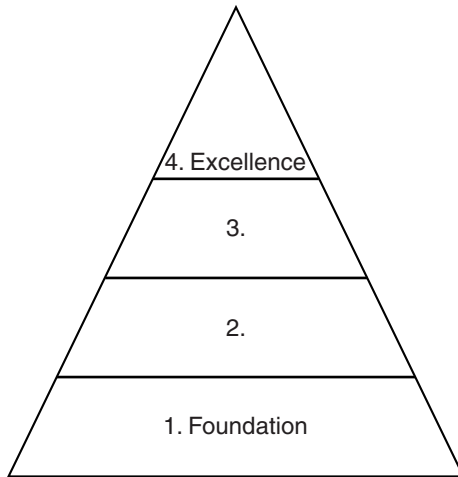
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**(ii)** Physical Education has many benefits such as improved health and fitness.

Identify **three** other possible benefits of Physical Education and explain how each can be achieved.

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(b) The sports development pyramid has four layers as shown in Fig. 3.



**Fig. 3**

(i) Name and describe layers 2 and 3 in Fig. 3.

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(ii) Name and describe the role of **one** national organisation in the UK that supports elite performers at the top of the sports development pyramid.

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(c) The first modern Olympic Games were in Athens in 1896.

(i) Describe the background to the modern Olympic Games.

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(ii) Describe the early aims and philosophy of the modern Olympic movement.

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(d) (i) Explain deviance in sport.

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(ii) Compare the possible effects of sportsmanship and gamesmanship on sporting situations.

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