



Oxford Cambridge and RSA

**Friday 17 June 2016 – Morning**

**A2 GCE PHYSICAL EDUCATION**

**G453/01 Principles and Concepts Across Different Areas of Physical Education**

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Candidates answer on the Answer Booklet.

**OCR supplied materials:**

- 12 page Answer Booklet (OCR12)  
(sent with general stationery)

**Other materials required:**

- Calculators may be used

**Duration: 2 hours 30 minutes**



**INSTRUCTIONS TO CANDIDATES**

- Write your name, centre number and candidate number in the spaces provided on the Answer Booklet. Please write clearly and in capital letters.
- Use black ink. HB pencil may be used for graphs and diagrams only.
- Answer **three** questions, at least one of which must be from Section A.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- 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 quality of your written communication will be assessed in questions marked with an asterisk (\*).
- The total number of marks for this paper is **105**.
- This document consists of **8** pages. Any blank pages are indicated.



A calculator may  
be used for this  
paper

## SECTION A

Candidates must answer at least one question from Section A.

### **Historical Studies (Option A1)**

1 (a) Explain how characteristics of popular recreation affected the physical competence and health of participants and opportunities for participation. [4]

(b) Describe the influence of the Clarendon Report on nineteenth century public schools.

Explain how public schools were central to the development of team games in the mid-nineteenth century. [6]

(c) Describe the objectives, content and methodology of the 1950s publications 'Moving and Growing' and 'Planning the Programme'.

How did the building of gymnasiums result in more effective participation for young people? [5]

(d)\* Explain how swimming has developed from a popular recreation activity to being a rational recreation activity.

Discuss the factors that impact on contemporary participation and performance in swimming. [20]

**SECTION A**

**Comparative Studies (Option A2)**

2 (a) Inter-mural and intra-mural sport are both features of high school sports programmes in the USA.

What is meant by the terms inter-mural sport and intra-mural sport?

Compare them in terms of organisation, status and ethos.

**[5]**

(b) Title IX has had a significant impact on sport in the USA.

Outline the aim of Title IX.

Discuss the benefits and drawbacks of Title IX in the USA today.

**[5]**

(c) Compare the growth and development of Rugby League in Australia and in the UK.

**[5]**

(d)\* Compare how schools in Australia and the UK help to prepare young people for lifelong participation in physical activity.

Critically evaluate the effectiveness of both of these systems.

**[20]**

**SECTION B**

**Sports Psychology (Option B1)**

3 (a) Explain why goal setting is important for sports performers. [4]

(b) The control of emotions and 'getting in the zone' can affect sports performance.

Using practical examples, describe the peak flow experience associated with the zone of optimal functioning in sport. [5]

(c) Explain the factors that affect social facilitation and social inhibition when applied to performance in sport. [6]

(d)\* Using practical examples of sports performance and healthy lifestyle, explain and critically evaluate the theories of personality. [20]

## SECTION B

## Biomechanics (Option B2)

4 (a) Using practical examples, describe the three axes of rotation. [3]

(b) Fig. 1 below shows the elbow joint acting as a third class lever during the holding phase of an arm curl.

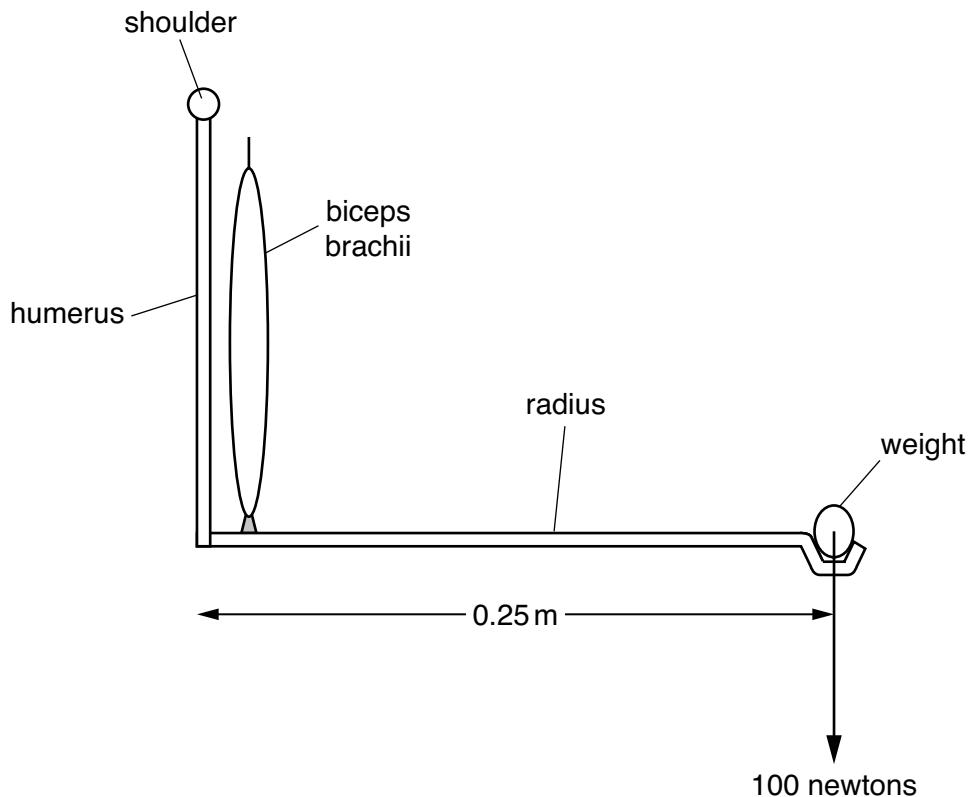


Fig. 1

Draw a diagram showing the effort arm and load arm for the lever system in Fig. 1.

Calculate the moment of force generated by the weight.

Explain **one** advantage and **one** disadvantage of this type of lever system. [6]

(c) Describe the term friction.

Using practical examples from sport, describe how different factors can change the amount of friction generated. [6]

(d)\* Sketch a free body diagram showing all the forces acting on a table tennis ball with backspin during flight.

Explain how backspin causes a deviation in the flight path and the bounce of a table tennis ball.

Critically evaluate the use of backspin in sport. [20]

**SECTION B**

**Exercise and Sport Physiology (Option B3)**

5 (a) Explain how the majority of ATP would be resynthesised by a marathon runner. [5]

(b) Give **one** method of flexibility training and explain the physiological adaptations that would take place following its prolonged use. [5]

(c) Identify **two** types of ergogenic aids that would benefit an aerobic athlete and explain how they enhance performance. [5]

(d)\* What is meant by the term body composition?

Explain how different body compositions might be of benefit in two different sports.

Critically evaluate methods of measuring body composition. [20]

**END OF QUESTION PAPER**





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