

**Wednesday 20 June 2012 – Afternoon**

**A2 GCE PHYSICAL EDUCATION**

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

Candidates answer on the Answer Booklet.

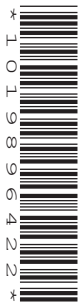
**OCR supplied materials:**

- 16 page Answer Booklet  
(sent with general stationery)

**Other materials required:**

- Calculators may be used

**Duration:** 2 hours 30 minutes



**MODIFIED LANGUAGE**

**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 that are indicated accordingly (\*).
- 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) How did each of the following factors influence the characteristics of mob football:
- a harsh lifestyle;
  - widespread illiteracy;
  - limited transport and communications?

Describe **two** changes in the nature of 'free time' from the eighteenth to the nineteenth century. [5]

- (b) Explain how the industrial revolution at first meant that the lower class had fewer opportunities to take part in pre-industrial sports and pastimes.

Referring to one specific sporting activity, explain **one** way opportunities for working class participation increased by the end of the nineteenth century. [5]

- (c) Describe the impact of Dr Thomas Arnold's reforms on Rugby School.

Describe **one** way Arnold still influences some schools today. [5]

- (d)\* Describe cricket as a pre-industrial popular recreation **and** as a post-industrial rational recreation.

Analyse the impact of social class and transport on the development of cricket from its earliest days to today. [20]

[Total: 35]

**Section A****Comparative Studies (Option A2)**

- 2 (a)** Rugby Union is a popular sport in Australia.

Describe the impact of professionalism on Rugby Union in Australia. [5]

- (b)** Compare the opportunities for young people to participate in sport and physical activity in the UK and the USA. [5]

- (c)** Describe 'social discrimination' and 'stacking' in relation to sport in the USA.

Outline **one** example of an attempt to overcome discrimination in sport in the UK. [5]

- (d)\*** Compare the impact of cultural factors on the development of sporting excellence in both Australia and the UK. [20]

**[Total: 35]**

## Section B

## Sports Psychology (Option B1)

- 3 (a) The theory of achievement motivation describes characteristics of sports performers who may have undesirable features associated with avoiding failure.

Describe **two** features of a 'need to avoid failure' performer.

How might this performer be encouraged to be more motivated to achieve? [4]

- (b) Zajonc states that when an audience is present, arousal is raised.

Explain how different levels of arousal affect those performing sport in front of an audience.

Refer in your answer to: type of task involved; ability level of the performer; personality of the performer. [5]

- (c) Explain what is meant by cognitive dissonance and its role in changing attitudes.

Describe **three** methods of changing attitudes from negative to positive to promote a balanced, active and healthy lifestyle. [6]

- (d)\* Below are some of the reasons which sports coaches gave after their teams lost:

*'The pitch did not suit our skilful way of playing; the pitch was too slippery'*

*'We were unlucky; we played well but it was one of those days'*

*'We were not good enough; they deserved to win'*

*'Our players did not seem to be bothered; we just didn't try hard enough'*

Using Weiner's attribution model, describe the different types of attribution given by the coaches.

Critically evaluate how each of these attributions affects performance in sport. [20]

[Total: 35]

**Section B****Biomechanics (Option B2)**

- 4 (a)** A swimmer completes three lengths of a 50 metre pool.

Define the terms 'distance' and 'displacement'. Give values for both distance and displacement when the swimmer has completed the three lengths. **[4]**

- (b)** Using Newton's Laws of Motion, explain how, during take off, a high jumper can achieve their maximum height. **[5]**

- (c)** Using the elbow as an example, sketch a diagram of a third class lever.

Describe each of the components of a third class lever and their application to human movement.

Explain the advantages and disadvantages of using a third class lever in sport. **[6]**

- (d)\*** Tennis player A hits a backhand with backspin to tennis player B. Player B then returns the ball into the net.

Sketch a horizontal velocity/time graph for the tennis ball during this sequence and describe what the graph shows.

Sketch a free body diagram showing all the forces acting on a tennis ball with backspin during flight. Analyse the generation of each of the forces and their effect on the ball's motion. **[20]**

**[Total: 35]**

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

- 5 (a) What is meant by body composition?

Describe **one** method of assessing body composition. [5]

- (b) Explain how different physiological adaptations which take place after a period of flexibility training, could benefit an athlete. [4]

- (c) Explain the use of periodisation when planning a personal health and fitness programme. [6]

- (d)\* Critically evaluate the use of the energy systems to re-synthesise adenosine triphosphate (ATP) in different sporting activities. [20]

**[Total: 35]**

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