

### PHYSICAL EDUCATION

Paper 3

9396/33 October/November 2017 2 hours 30 minutes

No Additional Materials are required.

## **READ THESE INSTRUCTIONS FIRST**

An answer booklet is provided inside this question paper. You should follow the instructions on the front cover of the answer booklet. If you need additional answer paper ask the invigilator for a continuation booklet.

Answer all questions.

Electronic calculators may be used.

You may lose marks if you do not show your working or if you do not use appropriate units.

The number of marks is given in brackets [] at the end of each question or part question.

This document consists of 4 printed pages and 1 Insert.



### Answer **all** questions.

# Section A: Exercise and sport physiology

- 1 (a) Describe the roles of the Krebs cycle and the electron transport (transfer) chain of the aerobic system in causing the complete breakdown of a glucose molecule. [6]
  - (b) Explain how improved efficiency of the aerobic system results in higher levels of fitness for an elite endurance athlete. [3]
  - (c) Strength endurance is a component of fitness that is required not only by elite athletes but by the general public as well.
    - (i) Define the term *strength endurance* and identify **three** factors that affect it. [4]
    - (ii) Describe a recognised test to evaluate strength endurance. [3]
    - (iii) Describe the physiological adaptations that occur after a prolonged strength training programme. [5]
  - (d) Reversibility and moderation are two principles of training that a coach should take into consideration when planning a training programme.

Define these **two** principles and explain how you would apply them to a fitness programme of your choice. [4]

(e) Elite athletes may have a high body mass index (BMI).

Discuss the view that a high BMI is harmful to the health of elite athletes. [5]

[Total: 30]

# Section B: Psychology of sport performance

2 (a) There are different theories of personality.

(i)	Describe the trait perspective of personality.	[2]
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- (ii) Describe the interactionist approach to personality. [2]
- (b) The competitiveness of a sports performer is linked to their achievement motivation.

Explain why a coach would **not** want performers to display need-to-avoid-failure characteristics. [4]

- (c) Fiedler's contingency model considers which leadership style is best to adopt depending on the favourableness of the situation.
  - (i) State the two leadership styles in Fiedler's model. [2]
  - (ii) Describe, using a sporting example, what is meant by a highly favourable situation. [4]
- (d) Sports psychologists suggest that self-efficacy is a key factor in sporting success.
  - (i) State what is meant by the term *self-efficacy*. [1]
  - (ii) Explain, using sporting examples, how a coach could increase the self-efficacy of a performer. [4]
- (e) Hanin identified that top athletes can enter a zone of optimal functioning where they experience peak flow. This is often known as 'being in the zone'.

Describe, using sporting examples, the characteristics of 'being in the zone'. [4]

- (f) Discuss the causes and effects of evaluation apprehension on sport performance. [4]
- (g) Explain, using Bandura's social learning theory, how aggressive behaviour in sporting situations is learned. [3]

[Total: 30]

#### Section C: Olympic Games: a global perspective

- 3 (a) Identify three sources of funding that are available to cover the costs of hosting the Olympic Games.
  [3]
  - (b) Boycotts have been a common feature of many Olympic Games and have often been used by nations as a platform for political confrontation.

Identify **three** examples where a nation has boycotted the Olympic Games and state their political reasons. [6]

- (c) Explain how Hitler intended to use the 1936 Olympic Games in Berlin to promote his political ideology, and describe the contribution of Jesse Owens at this Olympiad. [6]
- (d) Being chosen to host the 2008 Olympic Games caused an accelerated rebuilding of Beijing.

Describe how this programme of accelerated rebuilding was achieved. [4]

- (e) Outline the benefits an individual athlete gains from the spectacular aspect of their own sporting event at the Olympic Games. [5]
- (f) Suggest how politics might be removed from the Olympic Arena. [6]

[Total: 30]

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