

534/01

**PHYSICAL EDUCATION – PE4**

P.M. WEDNESDAY, 14 June 2006

(1¾ hours)

**ADDITIONAL MATERIALS**

In addition to this examination paper, you will need a 12 page answer book.

**INSTRUCTIONS TO CANDIDATES**

Answer **all** the questions.

**INFORMATION FOR CANDIDATES**

Mark allocations are shown in brackets.

Candidates will be assessed on their quality of written communication.

Answer **all** the questions.

1. (a) (i) What is the Glycaemic Index of foods? [1]  
 (ii) How could knowledge of the Glycaemic Index be of benefit to a coach or athlete? [2]
- (b) (i) What are the effects of glycogen depletion on performance in endurance events? [1]  
 (ii) Explain what strategies can be employed by an athlete to prevent glycogen depletion prior to taking part in an endurance event. [4]
- (c) Explain the variation in food fuel use during a training session for an activity of your choice. [6]
2. (a) (i) Explain the term  $\dot{V}O_2$  max. [1]  
 (ii) Identify and briefly describe **one** laboratory test and **one** field test that measures  $\dot{V}O_2$  max. [2]
- (b) Why might it be beneficial for a sportsperson to have a high  $\dot{V}O_2$  max? [5]
- (c) Explain how you would develop a performance profile, of yourself, for a named sporting activity. [4]
3. (a) Identify a potential performance enhancing drug for (i) aerobic activities **and** (ii) anaerobic activities. [2]
- (b) Outline the potential performance enhancing effects of the drugs identified in 3(a) (i) **and** 3(a) (ii). [4]
- (c) Explain the potential health risks associated with the use of specific performance enhancing drugs. [4]
4. “Childhood obesity often continues into adulthood.”  
 What are the lifestyle choices that can prevent such an occurrence? [14]