

**ADVANCED SUBSIDIARY GCE**  
**PHYSICAL EDUCATION**  
An Introduction to Physical Education

**G451**

Candidates answer on the question paper.

**OCR supplied materials:**  
None

**Other materials required:**  
None

**Tuesday 18 January 2011**  
**Morning**  
**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. Pencil may be used for graphs and diagrams only.
- 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).
- Answer **all** parts of the question in each of Sections A, B and C.
- 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**

Answer **all** parts of the question.

**Anatomy and Physiology**

1 (a) Fig. 1 shows a foot striking a ball.



**Fig. 1**

(i) State the movement at the ankle joint of the striking foot at the point of contact and name the agonist muscle responsible for creating the movement.

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(ii) How would a warm up affect the contraction of a skeletal muscle?

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(d) Smoking creates a build up of the gas carbon monoxide.

Give **two** effects of carbon monoxide on the transport of oxygen in the blood.

Compare the process of gaseous exchange of oxygen at the alveoli between rest and exercise.

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(e)\* Asthma is an increasing problem for many young people attempting to follow an active healthy lifestyle.

Discuss the effects of asthma on people performing endurance activities and describe the methods available to help them control these effects.

How might regular involvement in endurance activities impact on the participant's respiratory system?

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**Section B**

Answer **all** parts of the question.

**Acquiring Movement Skills**

- 2 (a) The classification of skills can help us to understand and learn new movement skills.

Using a practical example for each, describe what is meant by a simple skill and a complex skill.

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- (b) What is meant by response time when performing a movement skill?

Explain the factors that affect response time in performing practical activities.

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- (d) The associationist theory of learning movement skills involves a stimulus-response (S-R) bond being formed between a stimulus, such as a tennis ball travelling over the net and a response, such as a tennis player attempting to hit and return the ball.

Discuss the effects of Thorndike's Laws on the stimulus-response (S-R) bond and the learning of movement skills.

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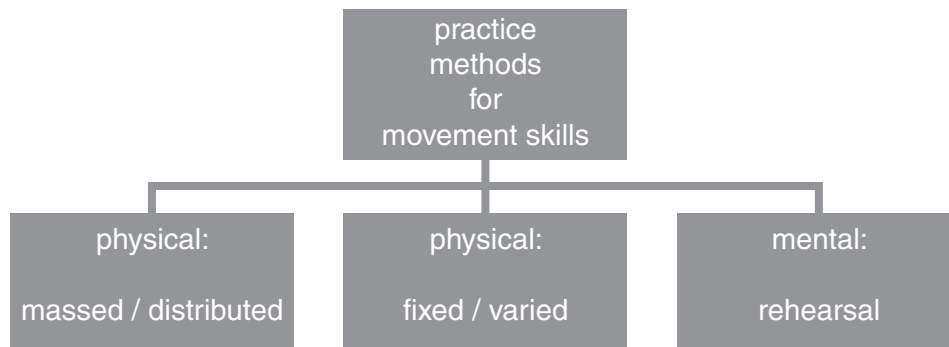
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(e)\* The types of practice methods used when learning movement skills can affect performance. Fig. 2 below shows different types of practice methods used for the effective performance of movement skills.



**Fig. 2**

Describe each of the practice methods shown in Fig. 2 and critically evaluate their use in the performance of movement skills.

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(b) Outline the origins of Australian Rules football and factors that have helped to develop the game in Australia.

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(c) Modern technological products are a key feature of contemporary sport.

Outline advantages and disadvantages on performance in sport of using modern technology. Use examples of specific technology to support each of your points.

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(d) (i) Describe the role of **either** UK Sport **or** one of the National Institutes of Sport.

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(ii) Explain the relatively recent move from a traditional amateur to a more professional approach to the organisation of sport in the UK.

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