OCR
RECOGNISING ACHIEVEMENT

ADVANCED SUBSIDIARY GCE

PHYSICAL EDUCATION

G451

An Introduction to Physical Education

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	

Centre number						Candidate number				

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.

© OCR 2011 [D/500/8027]
DC (SM/SW) 27047/3
OCR is an exempt Charity

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.

.....

.....

.....

..... **[2]**

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

.....

.....

.....

.....

.....

..... **[3]**

© OCR 2011

(b) Explain how a footballer would apply force to a ball in order to create spin and name the type of motion which this would create.

Using a practical example from Physical Education or sport describe linear motion.

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... **[5]**

(c) Cardiac output increases during physical exercise.

Explain how intrinsic control mechanisms cause cardiac output to increase during exercise.

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... **[5]**

© OCR 2011

(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.

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... **[5]**

© OCR 2011

(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?

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

© OCR 2011

..... **[10]**

© OCR 2011

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.

.....

.....

.....

.....

.....

.....

.....

..... **[4]**

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

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

.....

.....

.....

.....

.....

.....

.....

..... **[4]**

© OCR 2011

(c) For each of the three phases of learning, describe the use of different types of guidance to improve the performance of movement skills.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... **[6]**

© OCR 2011

(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.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... **[6]**

© OCR 2011

(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.

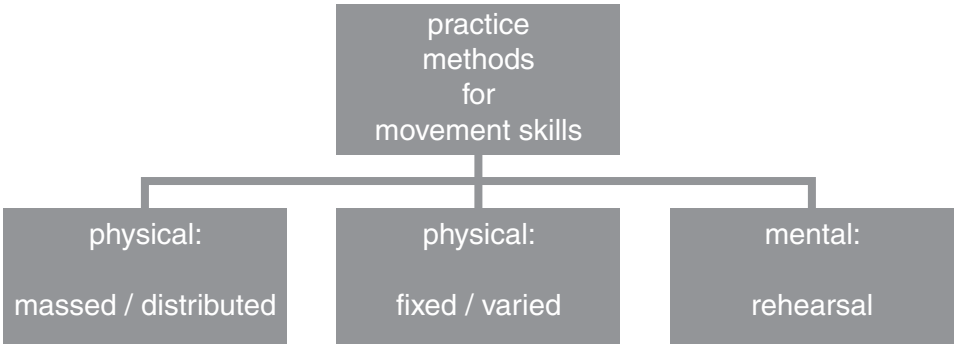

Fig. 2

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

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

© OCR 2011

..... [10]

© OCR 2011

Section C

Answer **all** parts of the question.

Socio-cultural studies relating to participation in physical activity

3 **(a)** State **three** benefits that can be gained through participation in Outdoor Education and explain why regular, high quality Outdoor Education is only available in some schools.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... **[6]**

© OCR 2011

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

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... **[5]**

(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.

.....

.....

.....

.....

.....

.....

.....

..... **[4]**

© OCR 2011

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

.....

.....

.....

.....

.....

..... **[3]**

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

.....

.....

.....

.....

.....

..... **[2]**

© OCR 2011

(e)* Critically evaluate the possible impact of hosting the Olympic Games in the UK in 2012.

Your answer should include benefits and drawbacks to both sport and society.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

© OCR 2011

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... **[10]**

RECOGNISING ACHIEVEMENT

Copyright Information

OCR is committed to seeking permission to reproduce all third-party content that it uses in its assessment materials. OCR has attempted to identify and contact all copyright holders whose work is used in this paper. To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced in the OCR Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download from our public website (www.ocr.org.uk) after the live examination series.

If OCR has unwittingly failed to correctly acknowledge or clear any third-party content in this assessment material, OCR will be happy to correct its mistake at the earliest possible opportunity.

For queries or further information please contact the Copyright Team, First Floor, 9 Hills Road, Cambridge CB2 1GE.

OCR is part of the Cambridge Assessment Group; Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.

© OCR 2011