OCR
RECOGNISING ACHIEVEMENT

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	

Centre number						Candidate number				

MODIFIED LANGUAGE

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.

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

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

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(c) Cardiac output increases during physical exercise.

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

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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. Describe the methods available to help them control these effects.

How might regular involvement in endurance activities affect 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.

Describe what is meant by a simple skill and a complex skill. Use a practical example in your description of each 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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(c) For each of the three phases of learning, describe the use of different types of guidance to improve the performance of movement skills.

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(d) The associationist theory of learning movement skills involves a stimulus-response (S-R) bond. The stimulus, such as a tennis ball travelling over the net, forms a bond with 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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(e)* The types of practice methods used when learning movement skills can affect performance. Fig. 2 shows different types of practice methods used for the effective performance of movement skills.

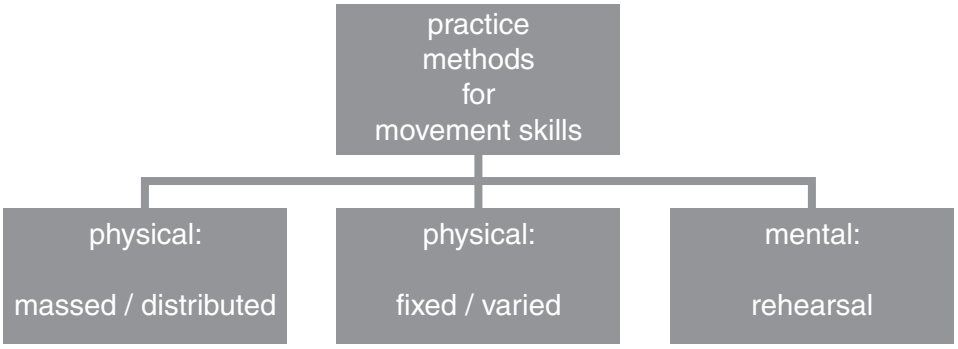

Fig. 2

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

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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. Explain why regular, high quality Outdoor Education is only available in some schools.

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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 of using modern technology on performance in sport. 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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(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.

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