

Thursday 23 May 2013 – Morning

AS GCE PHYSICAL EDUCATION

G451/01 An Introduction to Physical Education

Candidates answer on the Question Paper.

OCR supplied materials:

None

Other materials required:

None

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. HB pencil may be used for graphs and diagrams only.
- Answer **all** parts of the question in each of Sections A, B and C.
- 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).
- 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 – Anatomy and Physiology

Answer **all** parts of the question

- 1 (a) Fig. 1 shows a person using a resistance machine to increase leg strength.

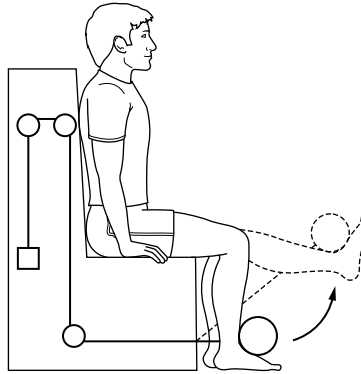


Fig. 1

Complete the table below for the knee joint moving in the direction of the arrow.

Joint	Synovial Joint Type	Movement	Agonist	Antagonist
Knee				

[4]

- (b) Gravity is one mechanism of venous return which aids the flow of blood back to the heart.

- (i) Identify **three** other mechanisms of venous return.

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(ii) Explain how an increase in venous return during exercise affects the quality of an athlete's performance.

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Fig. 2

(c) Fig. 2 shows a cyclist in a race.

(i) Describe **two** types of motion produced when cycling.

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(ii) Define Newton's second **and** third Laws of Motion.

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(iii) Using a practical example from Physical Education or sport explain Newton's third Law of Motion.

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(d) Government guidelines suggest that adults should undertake 30 minutes of moderate aerobic activity five times per week.

Explain how following a programme of aerobic exercise can help prevent coronary heart disease.

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SECTION B – Acquiring Movement Skills

Answer **all** parts of the question

- 2 (a) Explain how different factors affect response time in performing practical activities.

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- (b) Describe **four** different motivational strategies that might encourage disaffected young people to participate in a balanced, active and healthy lifestyle.

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(c) American Football is a highly commercialised game in the USA.

(i) Outline the origins of American Football.

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(ii) Describe factors which make American Football a contemporary commercial success in the USA.

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(d) Explain how modern technology can impact on performance in sport. Use a **different** example of modern technology to support **each** of your points.

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