

Candidate Name	Centre Number	Candidate Number
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GCSE

197/02

**PHYSICAL EDUCATION
PAPER 2**

A.M. WEDNESDAY, 20 May 2009

1½ hours

For Examiner's use only		
Question	Maximum mark	Mark awarded
1	20	
2	20	
3	20	
4	20	
5	20	
QWC	5	
Total	105	

INSTRUCTIONS TO CANDIDATES

Write your name, centre number and candidate number in the spaces at the top of this page.

Answer **all** the questions.

Write your answers to all the questions in the spaces provided in this question-and-answer booklet.

INFORMATION FOR CANDIDATES

The mark allocation for each part of a question is shown in brackets.

You will be awarded marks for the quality of written communication.

Answer **all** the questions in the spaces provided.

1. (a) Identify **three** factors that can affect physical fitness. [3]

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(b) (i) Give **two** examples of how the high level of physical fitness of a performer can be identified **during** a sporting activity. [2]

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(ii) How can a sportsperson's pulse rate be used as an indicator of cardio-vascular (aerobic) fitness? [2]

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(c) For any physical fitness test to be recognised it needs to be both **reliable** and **valid**.

(i) Explain what each term means [2]

Reliable

Valid

(ii) Give **three** ways in which fitness testing can help a performer or a coach plan their training. [3]

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(d) For a named sporting activity, complete the table below to:

- (i) Identify **two** physical fitness components that are most important. [2]
- (ii) Explain why the **two** components are important to your activity. [2]
- (iii) Describe fully how you would test **both** the chosen physical fitness components. [4]

NAMED SPORTING ACTIVITY

(i) PHYSICAL FITNESS COMPONENT	1. 2.
(ii) IMPORTANCE	<ul style="list-style-type: none"> • PHYSICAL FITNESS COMPONENT 1. • PHYSICAL FITNESS COMPONENT 2.
(iii) TESTS	<ul style="list-style-type: none"> • PHYSICAL FITNESS COMPONENT 1. • PHYSICAL FITNESS COMPONENT 2.

Total Mark _____

2. (a) (i) Explain why many sporting activities can be described as both **Aerobic** and **Anaerobic**. [1]

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(ii) What is the advantage to a **team game player** of having a high VO₂ Max? [2]

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(b) Suggest **three** benefits for participating in physical activity. [4]

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(c) Using the table below, describe fully the reasons for WARMING UP and COOLING DOWN at the beginning and end of physical activity. [5]

REASONS FOR WARMING UP

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REASONS FOR COOLING DOWN

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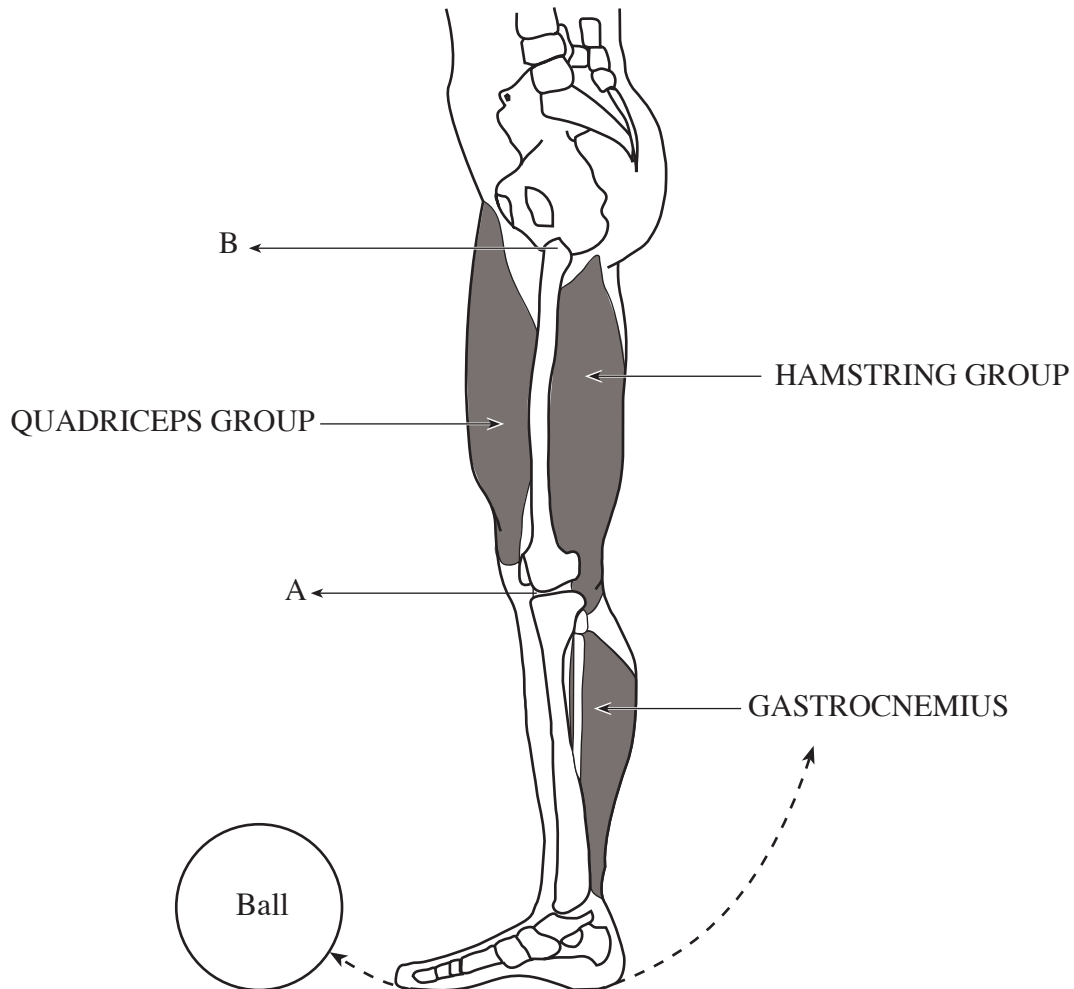
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(d) The diagram below shows the leg of a football player preparing to kick a ball.



(i) Which PRIME MOVER (AGONIST) Muscle would need to CONTRACT (FLEX) in order to *LIFT* the lower leg in readiness to kick the ball? [1]

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(ii) Which PRIME MOVER (AGONIST) Muscle would need to CONTRACT (FLEX) in order to *KICK* the ball? [1]

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(iii) Identify the type of joint at the KNEE (A). [1]

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(iv) Which joint, A or B allows most movement? [1]

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(v) What is the term used for muscles which *RELAX* to allow a movement to take place? [1]

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(vi) What attaches muscle to bone to allow movement at the joint to take place? [1]

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(vii) What attaches bone to bone to give joints stability? [1]

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(viii) The movement in the diagram is an example of which type of muscular contraction? [1]

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Total Mark

3. (a) Identify **three specific** precautions **you** would take to minimise the risk of injury in a named sporting activity. [3]

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(b) (i) Why is it generally undesirable for sportspersons to have a high percentage of body fat? [1]

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(ii) How can the level of body fat be controlled? [1]

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(iii) Explain why CARBOHYDRATE is the major energy fuel used during vigorous exercise. [2]

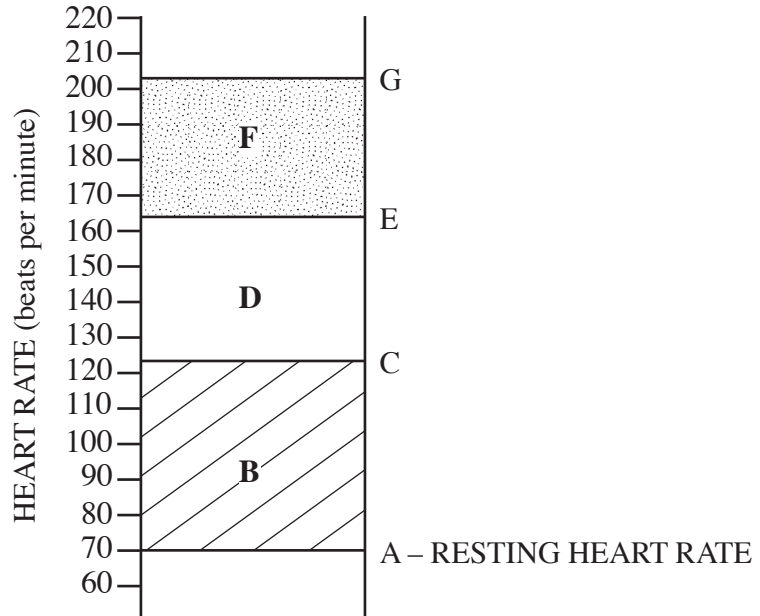
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(c) During vigorous exercise **immediate** changes take place in the body.

Identify **three** changes and explain how these changes help the body to cope with the demands of vigorous exercise. [5]

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(d) The diagram below shows how an eighteen year old sports person can use heart rate to work out how hard to train.



(i) What heart rate is indicated at 202 bpm (G)? [1]

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(ii) What threshold is identified at C? [1]

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(iii) What is the name given to Training Zone F? [1]

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(iv) How are the Heart Rates at E and C calculated? [2]

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(v) Explain why Training Zone B has little effect on Aerobic Fitness. [1]

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(vi) Explain what is meant by Aerobic Threshold. [1]

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(vii) Explain what is meant by Anaerobic Threshold. [1]

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Total Mark

4. (a) (i) What is meant by the term ability? [1]

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(ii) Name an ability and explain its importance in an activity of your choice. [2]

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(b) (i) Describe **one** type of feedback. [1]

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(ii) How can feedback help a sportsperson develop their performance? [3]

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(c) Explain how the following factors can contribute to **effective decision making** in a sporting activity of your choice. [5]

Named Sporting Activitiy

INPUT

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PERCEPTION/INTERPRETATION

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MEMORY

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(d) Goal-setting is important to a performer.

(i) How can short-term goals help in achieving long-term goals?

[2]

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- (ii) Using the SMART principles of goal-setting, explain in detail what each term means in relation to a **long-term goal** you have set yourself in a **named sporting activity**. [6]

NAMED LONG-TERM GOAL:

S	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
M	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
A	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
R	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
T	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>

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Total Mark

5. (a) (i) Give **one** reason to explain why closed skills are usually easier to learn than open skills. [1]

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(ii) Give **one** example from sport/physical activity of a **closed skill**. [1]

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(iii) Using sporting examples, explain the difference between BASIC and COMPLEX skills. [1]

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(b) Learning will not take place if a person lacks motivation.

(i) Name **two** types of motivation. [1]

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(ii) What have been the main factors that have motivated **you** in participating in sporting activity? [3]

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(c) Using a **specific sporting activity**, describe fully a **skilful performance**. [5]

Named Specific Sporting Activity

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