GCSE

4421/01

PHYSICAL EDUCATION

UNIT 1

P.M. FRIDAY, 20 May 2016

1 hour 30 minutes plus your additional time allowance

Surname _____

Other Names _____

Centre Number _____

Candidate Number 0 _____

© WJEC CBAC Ltd.

	For Examiner's use only		
	Question	Maximum Mark	Mark Awarded
Section A	1.	19	
	2.	15	
	3.	16	
	Section A Total	50	
Section B	4.	12	
	5.	9	
	6.	11	
	7.	6	
	8.	6	
	9.	6	
	Section B Total	50	
	Overall Total	100	

ADDITIONAL MATERIALS

DVD.

INSTRUCTIONS TO CANDIDATES

Use black ink, black ball-point pen or your usual method.

Write your name, centre number and candidate number in the spaces provided on the front cover.

Answer ALL questions in the spaces provided in this booklet.

If you run out of space, use the continuation pages at the back of the booklet, taking care to number the question(s) correctly.

INFORMATION FOR CANDIDATES

The clips for Questions 1 and 2 in Section A will be shown three times.

Before the clips are shown you will have five minutes to read the questions. Two clips will be shown during which time you may answer the questions and make notes.

The clips will be shown a second time. There will be five minutes after each clip to answer the questions.

The clips will be shown for a third and final time.

There will then be approximately seventy minutes to complete Sections A and B.

The number of marks is given in brackets at the end of each question or part-question.

You are reminded that assessment will take into account the quality of written communication used in your answers that involve extended writing in Section A (Q3 (b) and (c)) and Section B (Q.8, Q.9).

SECTION A

Answer ALL the questions in the spaces provided.

1. View the sailing video and answer the following questions.

(a) Describe how each of the components of fitness opposite are demonstrated in the video clip. [4]

1(a)

COMPONENT OF FITNESS	DESCRIPTION OF HOW THE COMPONENTS ARE DEMONSTRATED
Balance	
Co-ordination	
Strength	
Agility	

1(b) Name a recognised test for each of the components of fitness below. [4]

COMPONENT OF FITNESS	TEST
Balance	
Co-ordination	
Strength	
Agility	

1(c) (i) Identify a method of training that could improve strength. [1]

(ii) Explain how INCREASED strength could improve performance, using a sporting example of your choice. [2]

1(d) Explain why it is beneficial for a sedentary person to improve his/her fitness. [4]

1(e) Explain why it is important to have variety in your training. [4]

19

2. View the football video and answer the following questions.

(a) Describe how the following components of fitness are demonstrated in the video clip. [3]

COMPONENTS OF FITNESS	DESCRIPTION OF HOW COMPONENTS ARE DEMONSTRATED
Speed	_____ _____ _____ _____
Power	_____ _____ _____ _____
Agility	_____ _____ _____ _____

2(b) Draw a line to match the components of fitness to the appropriate definitions. [3]

COMPONENT OF FITNESS
Speed
Power
Agility

DEFINITION
A maximal muscular contraction
Changing direction at speed
Speed x strength
Travelling from A to B in the quickest possible time

2(c) (i) Identify a method of training that could develop speed. [1]

_____

_____

2(c) (ii) Explain how the principles of training below could be applied to the training method identified in (c)(i). [4]

PRINCIPLES OF TRAINING	EXPLANATION OF APPLICATION TO TRAINING METHOD
SPECIFICITY	
OVERLOAD	

2(d) Describe how YOU would warm-up for a physical activity of your choice. [4]

15

3(a) Research suggests that many people of all ages are not getting enough exercise.

Explain how the Government can help to promote a healthy lifestyle. [4]

3(b) Discuss whether the taking of performance enhancing drugs should be legalised. [6 QWC]

3(c) Describe the factors that have influenced YOUR participation in sport and physical activity.

[6 QWC]

16

SECTION B

Answer ALL the questions in the spaces provided.

4(a) Name TWO factors that determine the energy system used during physical activity. [2]

- _____

  _____

- _____

  _____

(b) (i) Draw a line to match the main energy systems used to the sporting activities shown below. [3]

ENERGY SYSTEM	SPORTING ACTIVITY
ATP/CP	60 m Sprint
Lactic Acid system	Marathon
Aerobic system	400 m

4(b) (ii) Place the following exercise characteristics in the correct columns in the table below.

[4]

A Maximal

B Heart rate between 60% and 80% of maximum

C Continuous

D Heart rate above 80% of maximum

AEROBIC TRAINING CHARACTERISTICS	ANAEROBIC TRAINING CHARACTERISTICS
•	•
•	•

4(c) Explain how heart rate could be used as a guide to a sportsperson's fitness. [3]

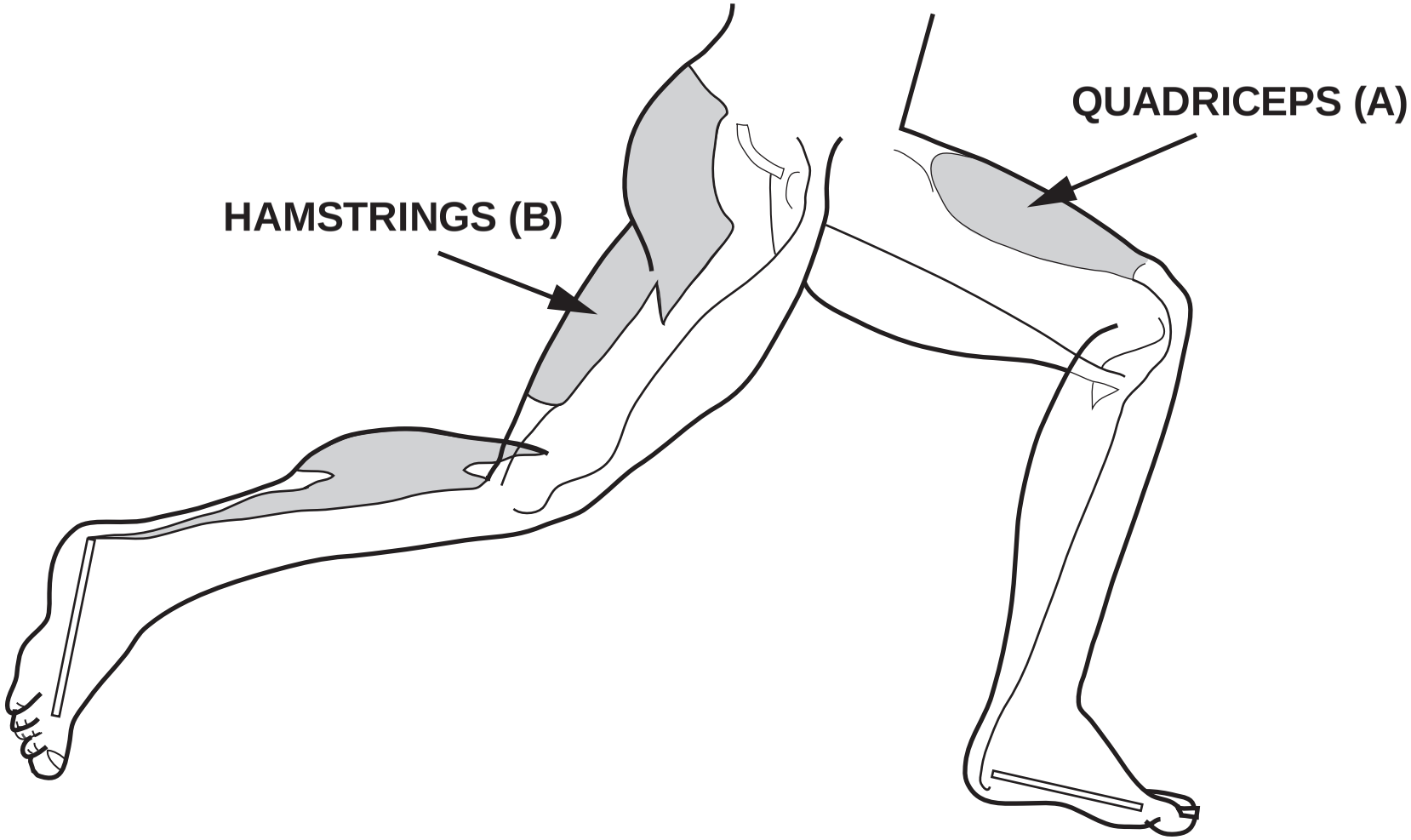
12

5(a) What is the main function of skeletal muscle? [1]

(b) In the diagram opposite, the Quadriceps (A) and Hamstrings (B) work together to enable movement to take place.

(i) Which muscle group contracts to extend the knee? [1]

(ii) Which muscle group contracts to flex the knee? [1]


QUADRICEPS (A)
HAMSTRINGS (B)

5(c) In the diagram opposite, the Triceps and Biceps are working to enable movement to take place.

(i) Which muscle has relaxed to enable extension at the elbow? [1]

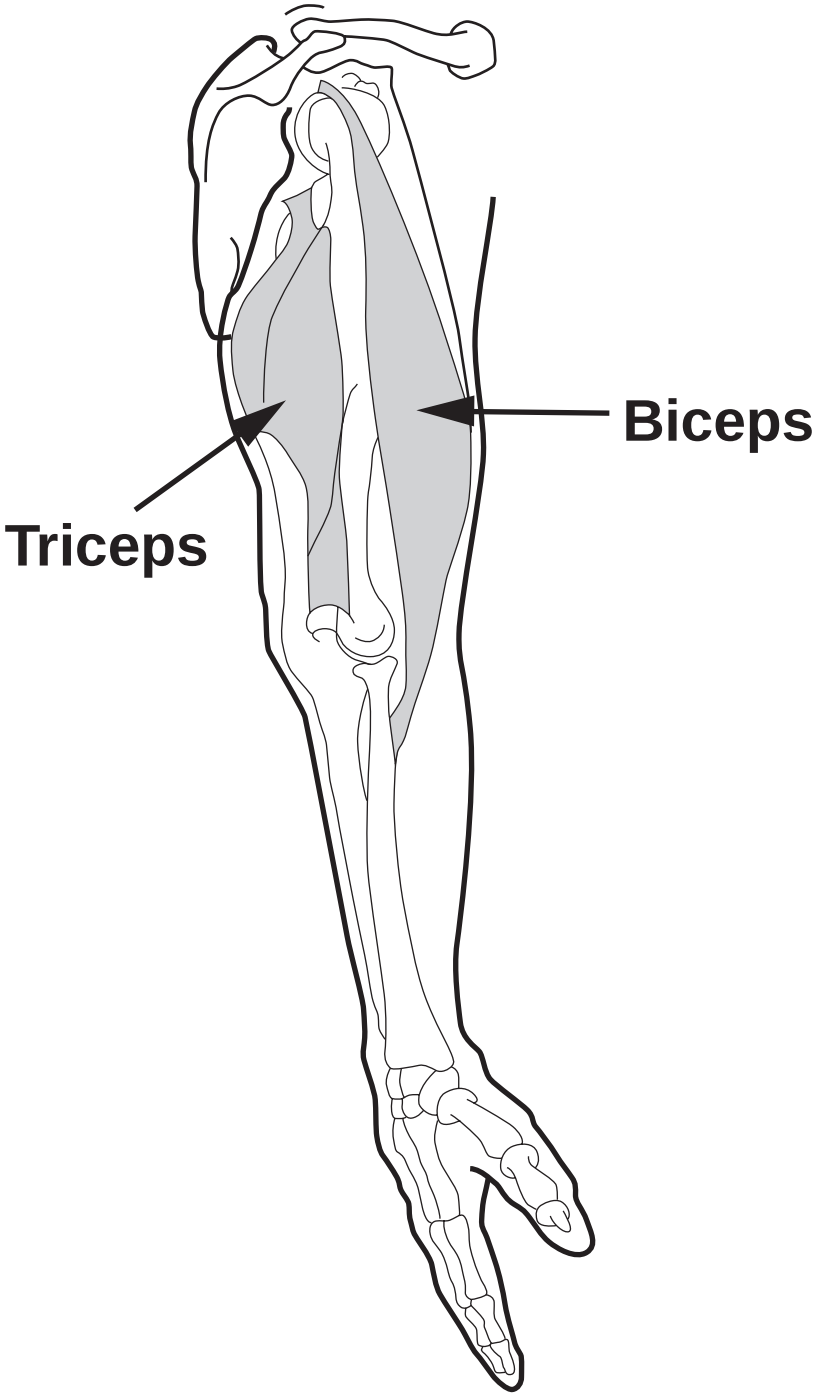
_____

_____

(ii) Which muscle has contracted to extend the elbow? [1]

_____

_____


Biceps
Triceps

5(d) Name FOUR possible effects of long term exercise on the MUSCULAR SYSTEM. [4]

- _____

  _____

- _____

  _____

- _____

  _____

- _____

  _____

9

6(a) Explain the following terms: [2]

Performance goals:

Outcome goals:

(b) Explain how the use of SMART targets could help improve performance. [4]

6(c) Describe how a coach could motivate a sportsperson to improve his/her performance. [5]

7(a) Which of the following skills would be described as a mainly CLOSED SKILL?
Tick (✓) ONE box only. [1]

Football Tackle	☐
Hockey Dribble	☐
Gymnastics Cartwheel	☐
Netball Pass	☐

7(b) An OPEN SKILL is mainly:
Tick (✓) ONE box only. [1]

performed in the same situation with no variation	☐
unaffected by the environment	☐
a skill where few decisions have to be made	☐
a skill involving responding to other players/ factors	☐

7(c) Name and describe the type of practice you could use to develop an open skill and a closed skill. [4]

(i) Open skill

7(c) (ii) Closed skill

6

8. Processing information has four stages. Explain each stage for processing information in a named skill. [6 QWC]

INPUT → DECISION MAKING → OUTPUT → FEEDBACK

6

9. Explain how the performance of a beginner will differ from that of a skilled performer. Use sporting examples to support your answer.

[6 QWC]

6

END OF PAPER

Question number	Additional page, if required. Write the question numbers in the left-hand margin.

Question number	Additional page, if required. Write the question numbers in the left-hand margin.

Question number	Additional page, if required. Write the question numbers in the left-hand margin.

Question number	Additional page, if required. Write the question numbers in the left-hand margin.