Centre No.						Paper Reference							Surname	Initial(s)
Candidate No.						6	7	2	3	/	0	1	Signature	

Paper Reference(s)

6723/01

Edexcel GCE

Physical Education

Advanced Subsidiary

Unit 3: Exercise and Training

Monday 21 January 2008 – Afternoon

Time: 1 hour 15 minutes

Materials required for examination
Nil

Items included with question papers
Nil

Examiner's use only

Team Leader's use only

Question Number	Leave Blank
1	
2	
3	
4	
Total	

Instructions to Candidates

In the boxes above, write your centre number, candidate number, your surname, initials and signature.
Check that you have the correct question paper.
Answer TWO questions. Write your answers in the spaces provided in this question paper.
Do not use pencil. Use blue or black ink.
Indicate which question you are answering by marking the box (☒).
If you change your mind, put a line through the box (~~☒~~) and then indicate your new question with a cross (☒).

Information for Candidates

The marks for individual questions and the parts of questions are shown in round brackets: e.g. **(2)**.
There are 4 questions in this question paper. The total mark for this paper is 50.
There are 16 pages in this question paper. Any blank pages are indicated.

Advice to Candidates

You will be assessed on your ability to organise and present information, ideas, descriptions and arguments clearly and logically, including your use of grammar, punctuation and spelling.

Printer's Log. No.
N29094A
W850/T6723/57570 5/7/3

N 2 9 0 9 4 A 0 1 1 6

Turn over

edexcel
advancing learning, changing lives

Leave blank

Answer only TWO questions in this question paper. Write your answers in the spaces provided.

If you answer Question 1 put a cross in this box ☒.

1. $\dot{V}O_2$ max is used to measure aerobic fitness.

(a) (i) Define $\dot{V}O_2$ max and identify **two** reasons why men tend to have a higher $\dot{V}O_2$ max than women.

Definition .....

.....

Reason 1 .....

.....

Reason 2 .....

.....

(3)

(ii) Name **one** suitable fitness test used to measure $\dot{V}O_2$ max and describe the protocol involved.

Test .....

Protocol .....

.....

.....

.....

.....

.....

.....

(4)

Leave blank

(iii) Describe the main characteristics of a method of training that would improve $\dot{V}O_2$ max.

.....

.....

.....

.....

.....

.....

.....

(3)

(b) There are three main types of muscle fibres.

(i) Identify the **three** fibre types and name a sport that would be suited to each.

Muscle fibre.....

.....

.....

Sport.....

Muscle fibre.....

.....

.....

Sport.....

Muscle fibre.....

.....

.....

Sport.....

(6)

Leave blank

(ii) Name a method of training that would be suitable to enhance the characteristics of each of the three types of fibre. State why the training methods selected are suitable and identify a likely adaptation to the muscle.

Fibre 1.....

.....

.....

.....

.....

.....

Fibre 2.....

.....

.....

.....

.....

.....

Fibre 3.....

.....

.....

.....

.....

.....

(9)

(Total 25 marks)

Q1

Leave blank

If you answer Question 2 put a cross in this box ☒.

2. (a) Warming up is said to improve performance. Explain how performing a warm up might improve performance.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

(6)

(b) Other than Yellow Elastic Cartilage identify **one** other type of cartilage found in the body. State specifically where the cartilage is located. Describe its characteristic and a role it performs.

Type of cartilage .....

Location .....

Characteristic .....

.....

.....

Role .....

.....

.....

(4)

Leave blank

(c) Bradycardia is an adaptation to exercise sought by many athletes.

(i) Define the term Bradycardia and explain why an aerobic athlete is likely to experience it.

.....

.....

.....

.....

.....

.....

.....

(3)

(ii) Identify **two** structural and **two** functional characteristics required for Bradycardia to occur.

Structural 1 .....

.....

Structural 2 .....

.....

Functional 1 .....

.....

Functional 2 .....

.....

(4)

Leave blank

(d) Name and describe the **four** main respiratory volumes.

Name .....

Description .....

.....

.....

Name .....

Description .....

.....

.....

Name .....

Description .....

.....

.....

Name .....

Description .....

.....

.....

(8)

Q2

(Total 25 marks)

Leave blank

If you answer Question 3 put a cross in this box ☒.

3. (a) (i) Describe how the conduction system regulates heart rate.

.....

.....

.....

.....

.....

.....

.....

.....

(3)

(ii) Identify and describe **one** physiological mechanism used by the body to control heart rate.

.....

.....

.....

.....

.....

.....

.....

.....

(4)

(b) (i) Arteries and veins differ in their roles. Identify the specific roles of arteries and veins.

.....

.....

.....

.....

(2)

Leave blank

(ii) Identify the characteristics of both arteries and veins. Explain how each characteristic assists in its specific role.

.....

.....

.....

.....

.....

.....

.....

(4)

(c) (i) Fitness tests are often criticised in terms of validity and reliability. Explain these terms.

Validity .....

.....

Reliability .....

.....

(2)

(ii) The NCF Multistage fitness test is frequently used by aerobic athletes. State the component of fitness that it measures and name an alternative test that measures the same component.

.....

.....

.....

.....

(2)

Leave blank

(iii) Using the concept of **reliability** explain why the NCF multistage fitness test should not be performed outside. Why would this test **not** be valid for a rower?

.....

.....

.....

.....

(2)

(d) Name and define **three** components of fitness required by a named sport.

Sport .....

Component 1 .....

Definition .....

.....

.....

Component 2 .....

Definition .....

.....

.....

Component 3 .....

Definition .....

.....

.....

(6)

Q3

(Total 25 marks)

Leave blank

If you answer Question 4 put a cross in this box ☒.

4. (a) Many endurance athletes have used illegal methods to improve their performance. Identify any such methods, describing how they work and the dangers which accompany them.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

(7)

Leave blank

(b) (i) Identify and define **three** different types of muscular contraction.

Contraction 1 .....

Definition .....

.....

.....

Contraction 2 .....

Definition .....

.....

.....

Contraction 3 .....

Definition .....

.....

.....

(6)

(ii) With examples from sport explain how each type of contraction might be used.

Contraction 1 .....

.....

Contraction 2 .....

.....

Contraction 3 .....

.....

(3)

Leave blank

(c) Explain how the principles of training can be applied to the training programme of a games player.

.....

.....

.....

.....

.....

.....

.....

.....

(5)

(d) Describe a plyometric exercise and explain how it works.

.....

.....

.....

.....

.....

.....

.....

.....

.....

(4)

Q4

(Total 25 marks)

TOTAL FOR PAPER: 50 MARKS

END

BLANK PAGE

BLANK PAGE

BLANK PAGE