

## AS PHYSICAL EDUCATION

Factors affecting participation in physical activity and sport

Specimen 2017 Morning Time allowed: 2 hours

## **Materials**

For this paper you may have:

a calculator.

### Instructions

- Use black ink or black ball-point pen. Pencil should only be used for drawing.
- Fill in the boxes at the bottom of this page.
- Answer all questions. You must answer the questions in the spaces provided. Do not write on blank pages.
- Do all rough work in this book. Cross through any work you do not want to be marked.

## Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 84.
- Questions should be answered in continuous prose. You will be assessed on your ability to:
  - use good English
  - organise information clearly
  - use specialist vocabulary where appropriate.

Please write clearly, in block capitals, to allow character computer recognition.				
Centre number		Candidate number		
Surname				
Forename(s)				
Candidate signa	ature			

## Section A

## Applied physiology

Answer **all** questions in this section.

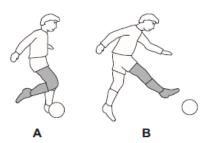
For questions	with four responses only <b>one</b> answer per question is allowed.		
For each answ	ver completely fill in the circle alongside the appropriate answe	er.	
CORRECT METHOD	● WRONG METHODS Ø ● ◆		
If you want to	change your answer you must cross out your original answer	as shown.	
If you wish to uselect as show	return to an answer previously crossed out, ring the answer your.	ou now wish to	
<b>0 1</b> Whice	ch <b>one</b> of these describes a mesocycle?		
<b>A</b> A	A 4 – 12 week period of training.	0	
ВА	A period of training involving a long-term performance goal.	0	
<b>C</b> A	week or a few days of training sessions.	0	
D T	The end of the session where rest and recovery takes place.	0	
		[1 mar	k]
0 2 Whice	ch athlete is most likely to supplement their diet with sodium bio	carbonate?	
<b>A</b> 40	00m hurdler	0	
<b>B</b> 5	5000m runner	0	
C H	ligh jumper	0	
D S	Shot putter	[1 mark	<b>‹</b> ]

0   3	The Bohr Shift is the movement of the oxyhaemoglobin disassocial curve to the right during exercise.	tion	
	Identify the <b>two</b> factors that cause the Bohr Shift.		
	A Decrease in carbon dioxide, decrease in temperature.	0	
	<b>B</b> Decrease in carbon dioxide, increase in temperature.	0	
	C Increase in carbon dioxide, decrease in temperature.	0	
	<b>D</b> Increase in carbon dioxide, increase in temperature.	0	[1 mark]

Turn over for the next question

0	4		1	Figure 1	shows	a football	player	kicking	a ball.
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## Figure 1



Complete **Table 1** to identify the articulating bones, the joint action and the main agonist at the shaded knee as the football player in **Figure 1** kicks the ball from **A** to **B**.

[3 marks]

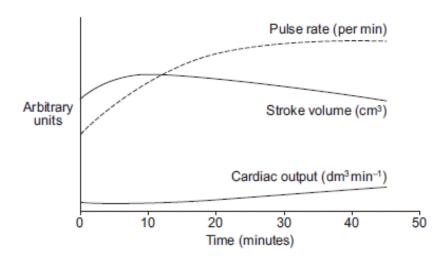
Table 1

Articulating bones	Joint action	Main agonist

0 4 . 2	Name, sketch and label the lever system operating at the knee of the football player in <b>Figure 1</b> .		
	Name of lever system:		
-			

**0 5 . 1 Figure 2** shows the cardiac output, pulse rate and stroke volume of an athlete exercising in a warm environment for 45 minutes.

Figure 2



Consider the effect of prolonged exercise in a warm environment on cardiac output **and** its components. Refer to **Figure 2** in your answer.

[4 marks]

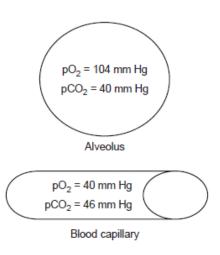
Question 5 continues on the next page

0 5 . 2	Paul and Mark are both 20 years old. Paul does no exercise. Mark is a cross country runner who trains three times a week.
	How would maximal cardiac output differ between Paul and Mark? Justify your answer.
	[3 marks]
0 5 . 3	Paul also has a high level of cholesterol.
	Identify <b>one</b> possible effect of high cholesterol levels on health.  [1 mark]

0 6

**Figure 3** shows the partial pressure of oxygen (pO<sub>2</sub>) and carbon dioxide (pCO<sub>2</sub>) in the alveoli and blood capillary.





Consider how oxygen **and** carbon dioxide move between the alveoli and the blood capillary. Refer to **Figure 3** in your answer.

[4 marks]

Turn over for the next question

^	_
"	
v	

effects of this type of training on the cardiovascular system in y	our answer.
	[8 marks]
Extra space	

## **Turn over for Section B** DO NOT WRITE ON THIS PAGE ANSWER IN THE SPACES PROVIDED

## Section B

## Skill acquisition and sports psychology

Answer **all** questions in this section.

0 8	There are a number of theories of arousal and performance.		
	Which <b>one</b> theory states that, as arousal increases, so does perform theory can also be written as $P = f(D \times H)$ .	rmance?	This
	A Catastrophe theory	0	
	<b>B</b> Drive theory	0	
	C Inverted U theory	0	
	<b>D</b> Zone of optimal functioning theory	0	[1 mark]
0 9	'Changing the practice type and the practice drills.'		
	Identify this type of practice.		
	A Distributed	0	
	<b>B</b> Massed	0	
	C Mental practice	0	
	<b>D</b> Variable	0	[1 mark]

1 0

The triple jump is an athletic event where the aim is to jump as far as possible. The jumper does this by performing a hop, a step and a jump from a running start.

Figure 4 shows an athlete performing the triple jump.





Classify the triple jump using the following continua:

- open closed
- self-paced externally-paced
- discrete serial continuous
- gross fine.

Justify your choices.

[4 marks]

12		
1 1	There are three components which make up our attitude formation a triadic model.	ccording to the
	Describe the <b>three</b> named components of the triadic model.	[3 marks]
1 2 . 1	What is a learning plateau?	[1 mark

1 2 . 2	Identify <b>three</b> causes of a learning plateau. Suggest strategies that a coach could use to overcome these causes.		
		[6 marks]	
1 3 . 1	What are outcome goals? Use a sporting example in your answer.	[2 marks]	
1 3 . 2	What are task orientated goals? Use a sporting example in your answer.		
	general	[2 marks]	

1 4	A rugby coach would like to measure anxiety levels of his team during a game using observations and physiological measures. The coach has known the players for at least a year. The coach will conduct the observations himself and will use technology to take physiological measures.
	Evaluate the validity of using observations and physiological measures to measure the anxiety of players during the game.
	[8 marks]
	Extra space

# **Turn over for Section C** DO NOT WRITE ON THIS PAGE ANSWER IN THE SPACES PROVIDED

## Section C

## Sport and society and technology in sport

Answer **all** questions in this section.

1 5	Wh	nich <b>one</b> of these describes stereotyping?	
	Α	A preconceived idea about a group.	$\bigcirc$
	В	The right to access the same opportunities, regardless of factors such as age, race, sex, mental or physical activity.	0
	C	The unfair treatment of a person.	0
	D	To form an unfavourable opinion of an individual often based on inadequate unfair treatment of a person.	0
			[1 mark]
1 6	Wh	ich <b>one</b> of these describes social control?	
	Α	The way in which people's thoughts, feelings, appearance and behaviour are regulated in social systems.	0
	В	Where members of a society learn its norms, values, ideas, practices and roles in order to take their place in that society.	0
	С	An alteration in the social order of a society.	0
	D	An organised group of people associated for some specific purpose or with a shared common interest.	0
			[1 mark]

1 7	Explain <b>two</b> characteristics of nineteenth century lawn tennis.	[4 marks]

1 8 . 1	Outline <b>one</b> positive benefit for factories developing football teams in the post-industrial society.		
	[1 mark]		
1 8 . 2	Explain the impact of improved transport and communication on sport in the post-industrial society.  [4 marks]		
1 9	Explain how the modern-day amateur differs from an amateur of the 19 <sup>th</sup> century.  [3 marks]		

<b>2 0</b> Explain the positive effects the media has had on the modern form of association football.	of
decediation rectical.	[6 marks]

2 1

**Table 2** shows the number of adults with a disability or illness who participated in sport once a week in 2005/2006 and in 2015/2016.

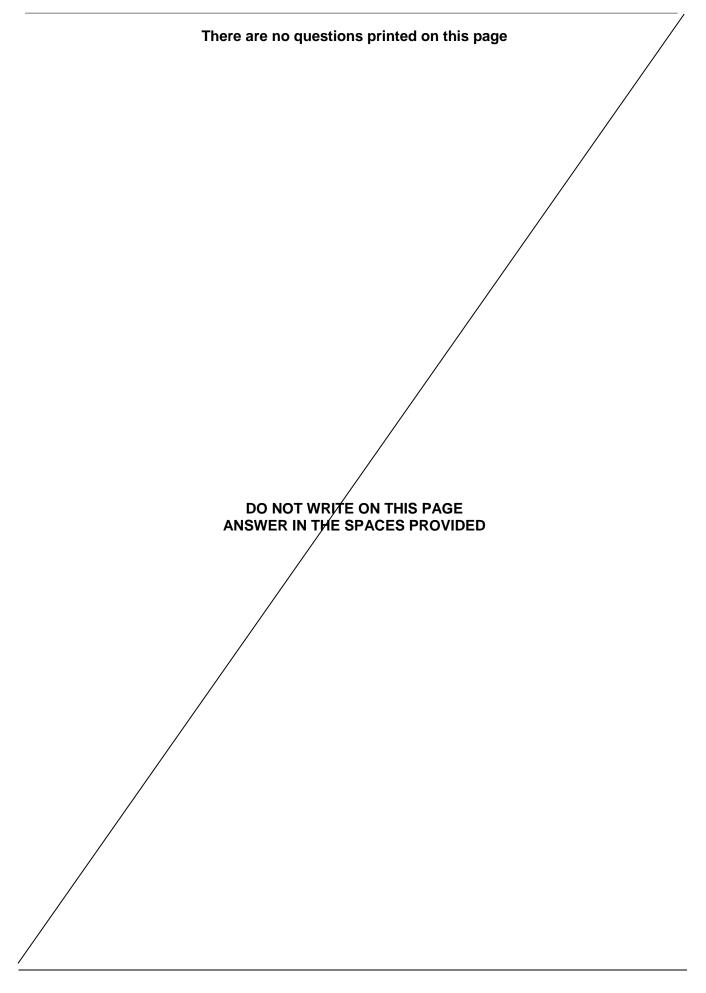
Table 2

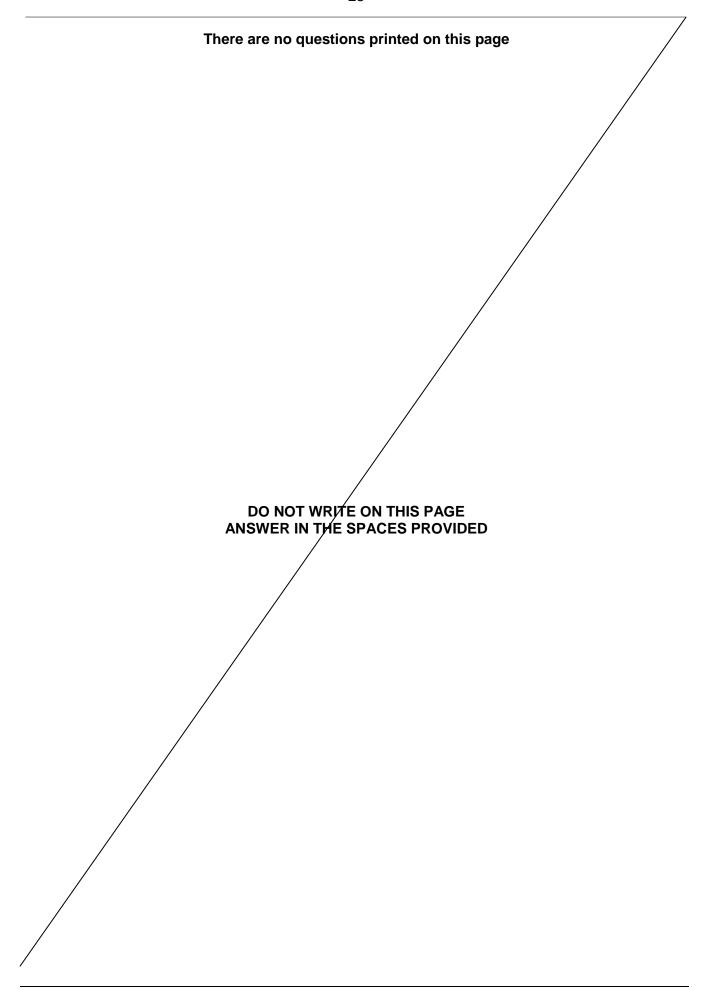
Number of adults with a disability or illness participating in sport once a week (millions)		
2005/2006	2015/2016	
1.33 million	1.56 million	

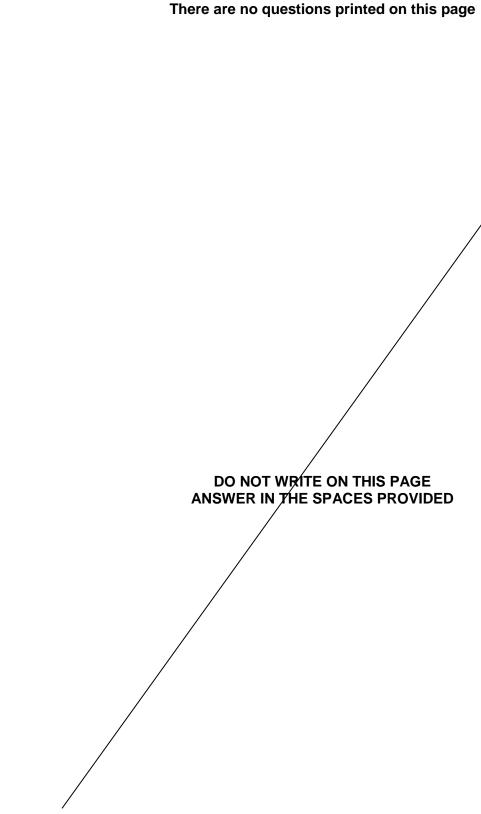
Analyse the participation rates for people with a disability in sport from 2005 to 2016. Use the information in <b>Table 2</b> to support your answer.		
	[8 marks	

Extra space	

## **END OF QUESTIONS**







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