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**PHYSICAL EDUCATION**

**9396/12**

Paper 1

**October/November 2017**

**2 hours 30 minutes**

No Additional Materials are required.

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**READ THESE INSTRUCTIONS FIRST**

An answer booklet is provided inside this question paper. You should follow the instructions on the front cover of the answer booklet. If you need additional answer paper ask the invigilator for a continuation booklet.

Answer **all** questions.

Electronic calculators may be used.

You may lose marks if you do not show your working or if you do not use appropriate units.

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



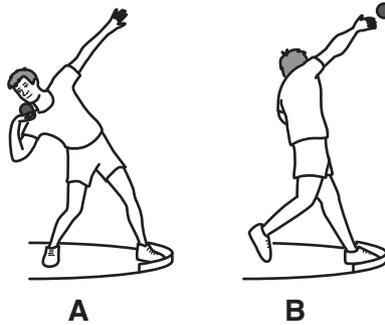
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This document consists of **5** printed pages, **3** blank pages and **1** Insert.

Answer **all** questions.

**Section A: Applied anatomy and physiology**

- 1 (a) Compare the structure of the shoulder and knee joints in terms of both range of movement and stability. [4]
- (b) Identify **two** structural and **two** functional characteristics of a slow oxidative muscle fibre. [4]
- (c) The diagrams show a shot put being thrown.



Identify the items 1–5 in the table to describe a movement analysis from position **A** to position **B** for the right shoulder joint and the right hip joint. Your analysis should include the type of muscle contraction, the type of movement occurring and the main agonist.

	type of muscle contraction	type of movement occurring	main agonist
right shoulder joint	1	2	3
right hip joint		4	5

[5]

- (d) Heart rate values vary before, during and after physical activity.

- (i) Explain what is meant by anticipatory rise. [2]
- (ii) Neural control of heart rate involves the autonomic nervous system.

Identify and explain the role of different receptors involved in increasing heart rate. [4]

- (e) While exercising, a performer will experience changes in breathing rate and lung volumes.

Complete items 6–8 in the table to show how the tidal volume, inspiratory reserve volume and expiratory reserve volume change during exercise.

	value at rest	change during exercise
breathing rate	16 breaths min <sup>-1</sup>	increases
tidal volume	500 cm <sup>3</sup>	6
inspiratory reserve volume	3000 cm <sup>3</sup>	7
expiratory reserve volume	1000 cm <sup>3</sup>	8
vital capacity	4500 cm <sup>3</sup>	no change

[3]

- (f) Explain the changes in the pressure and velocity of blood between leaving the left ventricle and returning to the right atrium of the heart. [4]

- (g) Describe the effects of altitude on the respiratory system. [4]

[Total: 30]

**Section B: Acquiring, developing and performing movement skills**

- 2 (a) Explain how the development of a motor skill is affected by early childhood experiences and environmental exposure. [4]
- (b) (i) Name the **four** elements of Bandura's observational model of learning. [1]
- (ii) Suggest **three** ways in which you could make a demonstration more effective when teaching or coaching a movement skill. [3]
- (c) Explain, using practical examples, how a coach should ensure that a motor programme of a movement skill is created and stored. [4]
- (d) Selective attention is an important component of the decision-making process.
- (i) Outline the function of selective attention. [2]
- (ii) Describe how a coach can improve the selective attention of a performer. [3]
- (e) During the development of skills a performer will progress through various phases of learning. Identify the first phase of learning and explain how the coach can maximise learning during this phase. [4]
- (f) Transfer is important in the learning and performance of movement skills.
- (i) Give an example of positive transfer and explain how a coach could enhance its effects. [2]
- (ii) State what is meant by the term *negative transfer* and describe how a coach could limit its effects. [3]
- (g) (i) State the difference between intrinsic motivation and extrinsic motivation. [1]
- (ii) Explain why extrinsic motivation is thought to be a weaker form of motivation than intrinsic motivation. [3]

[Total: 30]

**Section C: Contemporary studies in physical education and sport**

- 3 (a)** During their leisure time people can select from a wide range of activities and many choose to participate in sport.
- (i)** Outline the main differences between play and sport. [3]
  - (ii)** Explain the importance of physical recreation to individuals and society. [4]
- (b)** Different countries have different approaches to the development of excellence in sport.
- (i)** Describe the benefits to a country of deciding to invest heavily in developing excellence in sport. [5]
  - (ii)** Using a country of your choice, identify and describe the policies and initiatives that are in place to achieve excellence in sport. [5]
- (c)** Local communities can be dependent on leisure provision.
- (i)** Compare voluntary and public provision. [4]
  - (ii)** State the advantages and the disadvantages for local communities of more private fitness clubs opening. [4]
- (d)** Explain, using appropriate examples, how the media has changed the nature of sporting competition. [5]

[Total: 30]





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