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**PHYSICAL EDUCATION**

**9396/12**

Paper 1

**October/November 2014**

**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.



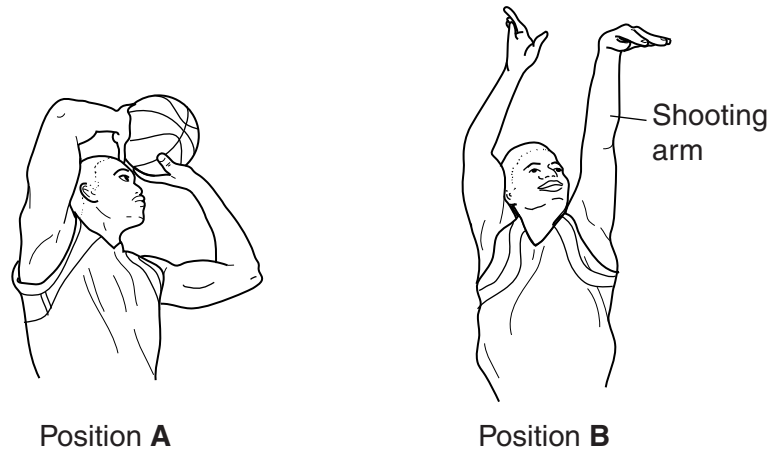
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This document consists of **4** printed pages and **1** insert.

Answer **all** questions.

**Section A: Applied Anatomy and Physiology**

- 1 (a) Fig. 1 shows a basketball player completing a free throw shot.



**Fig. 1**

- (i) Identify the items 1–5 in the table below to describe a movement analysis of the elbow and wrist joints of the shooting arm as it moves from position **A** to position **B**. Your analysis should include the type of muscle contraction, the type of movement occurring and the agonist muscles involved in this movement.

	<b>type of muscle contraction</b>	<b>type of movement occurring</b>	<b>agonist muscle</b>
elbow joint	1	2	3
wrist joint		4	5

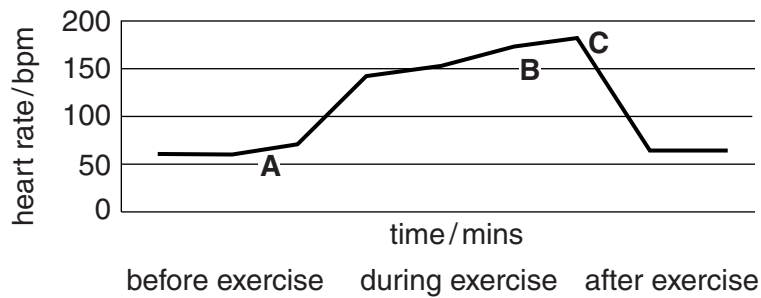
[5]

- (ii) Name the bones that articulate at the elbow joint and at the wrist joint. [2]
- (iii) Name the type of synovial joint working at the elbow **and** explain the features of a synovial joint that help to maintain the stability of the joint. [5]

- (b) During exercise the heart rate of a performer will increase.

- (i) Describe the route of blood from the lungs, through the chambers and valves of the heart, to the aorta **and** explain what happens at each stage. [4]

- (ii) Fig. 2 shows the changes in the heart rate before, during and after exercise.



**Fig. 2**

Using the information in Fig. 2, identify **and** explain the changes taking place at points **A**, **B** and **C**. [6]

- (c) The respiratory system undergoes a number of changes during exercise.
- (i) Define the terms *minute ventilation* and *residual volume* **and** outline how they change during exercise. [4]
- (ii) Explain the effect of altitude on the respiratory system. [4]

[Total: 30]

### Section B: Acquiring, Developing and Performing Movement Skills

- 2 (a) Explain the relationship between the terms *skill* and *ability*. [2]
- (b) Skills can be classified using various continua. One event in athletics is the discus throw. Classify the discus throw using each of the four continua below **and** justify your answer for each classification.
- open and closed
  - discrete, serial and continuous
  - externally and internally paced
  - high and low organisation [4]
- (c) Outline the principles of the cognitive theory of learning **and** explain the advantages of using this approach to develop skilful performers. [6]
- (d) During the development of skills, a performer will progress through various phases of learning. Name the second phase of learning **and** explain how the coach can maximise learning during this phase. [4]
- (e) Feedback is important in the development of skills. Using practical examples, explain what is meant by the terms *positive feedback* and *negative feedback*. [2]

- (f) Motivation is used to develop persistence and maintain a performer's effort levels. Define the term *intrinsic motivation* **and** suggest how a coach can use it effectively to improve performance. [4]
- (g) Performers often have to complete a variety of skills. Using a practical example, explain the term *executive motor programme*. [4]
- (h) Selective attention is a component of information processing that allows skills to be completed. Identify the strategies a coach could use to improve selective attention. [4]

[Total: 30]

### Section C: Contemporary Studies in Physical Education and Sport

- 3 (a) The birth of modern sport is said to have begun in the nineteenth century.

The following definition attempts to explain the concept of sport.

*'Sport is an institutionalised, competitive activity that involves vigorous physical exertion and the use of relatively complex physical skills by individuals whose participation is motivated by a combination of intrinsic and extrinsic factors'.* [Coakley 1993]

- (i) Explain the words *institutionalised* and *competitive* within the context of the definition. [2]
- (ii) Why would a national government wish to increase mass participation in sport? [6]
- (iii) How does an individual's choice of leisure activities reflect privilege and purposefulness? [2]
- (b) Local communities are dependent on leisure provision.
- (i) Explain the terms *voluntary provision* and *public provision*. [4]
- (ii) Outline the advantages of private provision for a local community. [3]
- (iii) What provision does an elite performer require in order to achieve excellence in their chosen sport? [6]
- (c) Explain the positive role of the media in relation to reporting sporting issues. [7]

[Total: 30]

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