
PHYSICAL EDUCATION

9396/13

Paper 1

October/November 2016

2 hours 30 minutes

No Additional Materials are required.

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.

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

Answer **all** questions.

Section A: Applied anatomy and physiology

- 1 (a) Explain the difference between isokinetic and concentric muscle contractions. [2]
- (b) Identify the items 1–5 in the table below to describe a movement analysis of the discus throw from position **A** to position **B** (Fig. 1.1) for both the **right shoulder** joint and the **right hip** joint. Your analysis should include the type of muscle contraction, the movement occurring and the main agonist muscles.

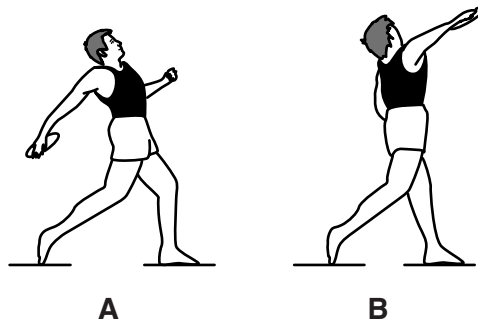


Fig. 1.1

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

[5]

- (c) During exercise the heart rate increases.

Explain how neural and hormonal factors regulate the heart rate before, during and after exercise. [6]

- (d) (i) Describe the systemic circulatory system. [4]

- (ii) The velocity of the blood changes as it flows through the systemic circulatory system.

Describe the changes in blood velocity and explain how these changes occur. [5]

- (e) (i) Explain how the mechanics of breathing change during exercise to enable a performer to ventilate more air. [4]

- (ii) Describe the structures within the lungs that aid the process of gaseous exchange. [4]

[Total: 30]

Section B: Acquiring, developing and performing movement skills

2 (a) Skilful performances:

- are learned,
- are goal directed,
- follow technical models,
- are aesthetically pleasing.

Using practical examples, describe what is meant by each of these characteristics. [4]

(b) Bandura's observational learning theory is one way of describing the learning of motor skills and involves the following elements.

attention – retention – motor reproduction – motivation

Using examples, describe each of these elements of observational learning. [4]

(c) Using a sporting example, explain how motor programmes are formed. [5]

(d) Using an example from a sport specific skill, explain open loop control. [3]

(e) Selective attention is a component of information processing that allows skills to be completed effectively.

How could a coach improve a performer's selective attention? [4]

(f) The memory process plays an important part in acquiring and performing motor skills.

Describe the basic model of the memory process when performing motor skills. [5]

(g) Use the Inverted U theory to explain how levels of arousal can affect the performance of motor skills. [5]

[Total: 30]

Section C: Contemporary studies in physical education and sport

- 3 (a) Play is considered to be a valuable activity for children.
How do young children benefit from play? [3]
- (b) State **three** characteristics of sport. [3]
- (c) Using a country of your choice, describe the policies and initiatives that are in place to achieve excellence in sport. [5]
- (d) Local communities are dependent on different bodies to provide leisure facilities for physical activity.
(i) What are the advantages of private bodies providing facilities for a local community? [3]
(ii) Identify and describe **two** other bodies that provide leisure facilities. [4]
- (e) More men take part in regular physical activity than women.
Suggest ways in which more women can be encouraged to take part in physical activity. [4]
- (f) Explain how sponsorship of sport is closely linked to the media. [4]
- (g) How is the ethic of fair play encouraged and maintained in elite sport? [4]

[Total: 30]

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