GCE A LEVEL

S25-1550U30-1

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FRIDAY, 23 MAY 2025 – MORNING

PHYSICAL EDUCATION – A2 unit 3

Evaluating Physical Education

2 hours

ADDITIONAL MATERIALS

A WJEC pink 16-page answer booklet.
A calculator and a ruler.

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen.
Answer **all** questions.
Write your answers in the separate answer booklet provided, following the instructions on the front of the answer booklet.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets at the end of each question or part-question.
You are reminded of the necessity for good English and orderly presentation in your answers.
Diagrams, charts and graphs can be used to support answers when they are appropriate.

Answer **all** questions.

1. The cardiovascular and respiratory systems play a vital role in effective athletic performance.

(a) Outline the relationship between heart rate, stroke volume and cardiac output. [3]

During exercise, the working muscles require more blood.

(b) (i) Describe how blood is redistributed to the working muscles during exercise. [3]

(ii) Justify **three** reasons for the redistribution of blood during exercise. [3]

(c) Explain how **three** long-term cardiorespiratory adaptations could improve sporting performance. [6]

2. Ice hockey is a popular team sport in the UK. In order to be effective, teams need to develop cohesion.

Figure 1 – Ice hockey

(a) Outline the difference between task cohesion and social cohesion. [2]

(b) Explain, using examples, the factors that affect team cohesion. [6]

(c) Explain how a coach could reduce the Ringelmann effect in a team. [6]

(d) Justify why a coach would use different styles of leadership with a team. [6]

3. The javelin and discus are technical field events that require the application of biomechanical principles.

Figure 2 – javelin and discus

(a) Identify **two** factors that affect the flight path of a javelin. [2]

(b) Explain, with reference to Newton's second law of motion, how an elite athlete could throw the discus a greater distance. [3]

(c) Analyse, with reference to the discus, how the Bernoulli principle can be applied to lift force. [5]

Performance-enhancing drugs (PEDs) are substances used to improve physical ability and are notorious for their illegal use in athletic competitions.

(d) Outline the possible risks associated with the misuse of illegal ergogenic aids. [3]

(e) Describe how a performer could use the process of carbo-loading. [6]

4. Cricketers require good reaction time in order to achieve effective performance.

(a) Outline how response time could be improved. [3]

(b) Explain how the psychological refractory period (PRP) can affect reaction time. [3]

Cricket coaches consistently provide feedback to individuals and to the team.

(c) Analyse, using examples, how feedback can influence sporting performance. [10]

5. Discuss how globalisation has influenced sport. [20]

END OF PAPER