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A-level PHYSICAL EDUCATION

Paper 1 Factors affecting participation in physical activity and sport

Wednesday 24 May 2023

Afternoon

Time allowed: 2 hours

Materials

For this paper you may use:

• a calculator.

Instructions

- Use black ink or black ball-point pen. Pencil should only be used for drawing.
- Fill in the boxes at the top of this page.
- Answer all questions. You must answer the questions in the spaces provided.
 Do not write on blank pages.
- If you need extra space for your answer(s), use the lined pages at the end of this book. Write the question number against your answer(s).
- 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 105.
- 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.

| For Examiner's Use | |
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| Section | Mark |
| Α | |
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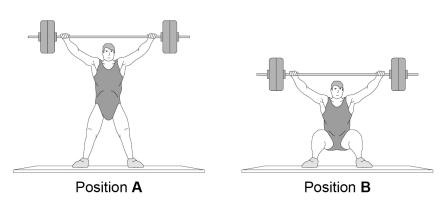
Section A

| Applied anatomy and physiology |
|---|
| Answer all questions in this section. |
| |
| Only one answer per question is allowed. |
| For each question completely fill in the circle alongside the appropriate answer. |
| CORRECT METHOD WRONG METHODS © ① |
| If you want to change your answer you must cross out your original answer as shown. |
| If you wish to return to an answer previously crossed out, ring the answer you now wish to select as shown. |
| |
| 0 1 Which lung volume will be lower during exercise than at rest? |
| [1 mark] |
| A Inspiratory reserve volume |
| B Minute ventilation |
| C Residual volume |
| D Tidal volume |
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Figure 1 shows an athlete performing a squat.

Figure 1



Which one of the following best describes the action of the quadriceps muscle group between position ${\bf A}$ and position ${\bf B}$?

[1 mark]

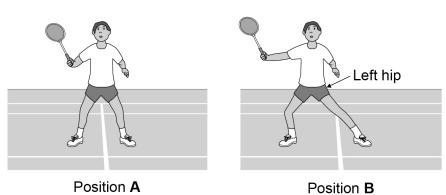
- A Contracting concentrically
- **B** Contracting eccentrically
- C Contracting isometrically
- **D** Relaxing as the antagonist

Turn over for the next question



Figure 2 shows a badminton player in two different positions as they prepare to hit a shot.

Figure 2



Complete **Table 1** for the movement at the left hip as the badminton player moves from position **A** to position **B**.

[4 marks]

Table 1

| Articulating bones | 2 |
|--------------------|---|
| Type of joint | |
| Plane | |
| Axis | |

| 0 4 | Describe the role of the sympathetic and parasympathetic nervous systems in the regulation of heart rate. | | | |
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| 0 5 | An amateur boxing match consists of three rounds. Each round lasts 3 minutes. There is a 1-minute break between each round. Analyse the role of excess post-exercise oxygen consumption (EPOC) during the match and its impact on the performance of the boxer as the rounds progress. [3 marks] |
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| high intensity interval training (HIIT). [8 ma You may use this space to plan your answer. | |
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Table 2 shows the difference in physiological measures between two 30-year-old 1500 m runners.

Table 2

| | Runner A | Runner B |
|-----------------------------------|----------|----------|
| Max cardiac output (L/min) | 20 | 25 |
| Max A-VO ₂ diff (ml/L) | 130 | 140 |
| Slow oxidative muscle fibre % | 60 | 70 |

Evaluate whether the data in **Table 2** could be used to predict the VO_2 max of each runner **and** which runner would win a 1500 m race.

You may use this space to plan your answer.

[15 marks]



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Section B

Skill acquisition

Answer **all** questions in this section.

Which **one** of the following is most commonly described as trial and error learning? [1 mark]

A Insight learning

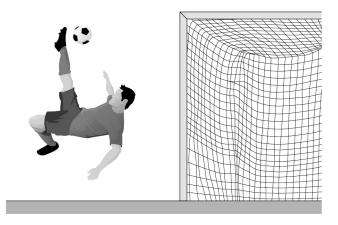
B Observational learning

C Operant conditioning

D Social development theory

0 9 Figure 3 shows a footballer performing an overhead kick.

Figure 3



Which **one** of the following is the correct skill classification for an overhead kick in football?

[1 mark]

A Complex and low organisation

B Complex and high organisation

C Simple and low organisation

D Simple and high organisation



| 1 0 | Negative transfer occurs when the learning of one skill hinders the learning of another. |
|---------|---|
| 1 0.1 | Outline two causes of negative transfer. [2 marks] |
| | 1 |
| | 2 |
| 1 0 . 2 | Describe one way a coach can prevent negative transfer occurring. [1 mark] |
| 1 1.1 | Define the term 'psychological refractory period'. [1 mark] |
| | |
| 1 1.2 | Explain why the psychological refractory period occurs. Refer to a sporting example in your answer. [3 marks] |
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| 1 2 | A trampolinist is learning to perform a somersault using a harness. |
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| | Evaluate the use of mechanical guidance for this performer. [3 marks] |
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Do not write outside the 1 3 Tom Daley won an Olympic gold medal in diving. Evaluate the effectiveness of mental practice when developing a diver's performance. [8 marks] You may use this space to plan your answer.



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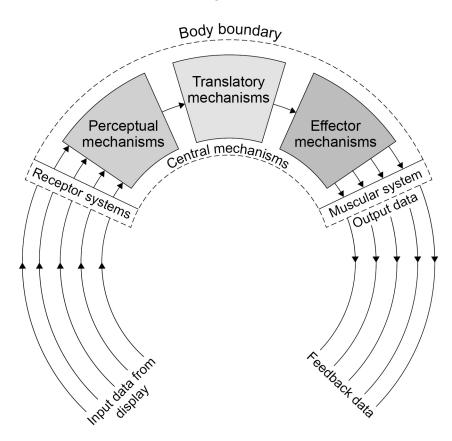


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Figure 4 shows Whiting's information processing model. Over arousal can impact a performer's ability to process information effectively.

Figure 4



Analyse how over arousal would impact on the information processing of a basketball player when attempting a pass.

Refer to Whiting's information processing model throughout your answer.

[15 marks]

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| Sport and society | | | | | |
| Answer all questions in this section. | | | | | |
| 1 5 | Which one of the following is not a primary focus of Sport | t England? [1 mark |] | | |
| | A To improve access to funding for new clubs B To improve the quality of physical activity provision C To increase access to sport | 0 | | | |
| 1 6 | D To increase the number of elite competitions Which one of the following is a characteristic of real tennis pre-industrial Britain (pre-1780)? | s and mob football in |] | | |
| | A Involved wagering | 0 | | | |
| | B Played by the lower class | 0 | | | |
| | C Required expensive facilities | 0 | | | |
| | D Violent and unruly | 0 | | | |
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| 1 7.1 | Children in state schools have a different sporting experience than children in priva schools. | | | |
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| | This is one result of social stratification. | | | |
| | Define social stratification. | | | |
| | [1 mark] | | | |
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| 1 7.2 | State three reasons why attending a private school may improve a child's opportunities in sport. [3 marks] | | | |
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| 1 8 | Laura is trying to lead a more active lifestyle. She is considering taking up jogging or playing 5-a-side football. | | | |
| | Explain the similarities and differences of benefits gained from increased participation in: | | | |
| | jogging alone | | | |
| | • playing 5-a-side football. [3 marks] | | | |
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| 1 9 | Evaluate whether primary or secondary socialisation has a greater impact or | n an |
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| | individual's participation in sports throughout their life. | |
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| | changing status of professionals ir | n tennis has affected the |
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| players. | | [8 marks |
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The industrial and post-industrial period (1780–1900) saw an increase in the spread of rationalised sport throughout Britain.

Analyse the impact of the following factors on the spread of Association Football in Britain:

- the church
- local authorities
- transport
- · communication.

[15 marks]

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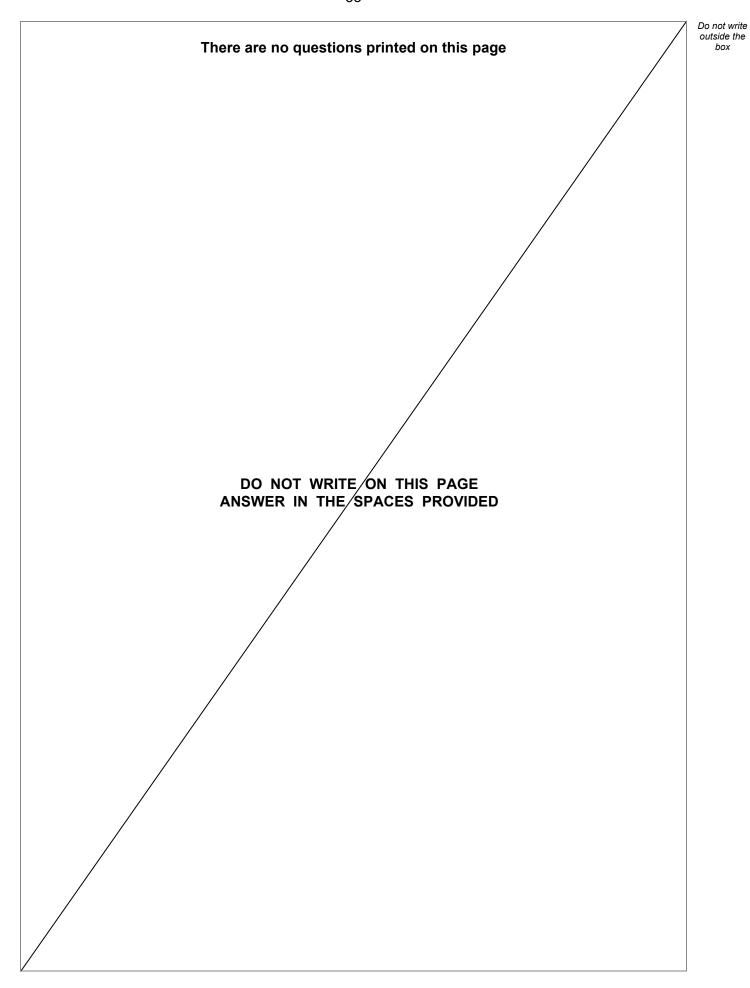
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