



Time Allowed: 60 minutes

- a pen

- Use black ink or black ball-point pen. Pencil should only be used for drawing.
- Fill in the boxes at the bottom of this page.
- Answer all questions. You must answer the questions in the space provided. Do not write outside the box around each page or on blank pages.
- Do all rough work in this book. Cross through any work you do not want to be marked.

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 62.
- 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.

Candidate signature _____

Multiple-choice questions	/ 6	<u>Target</u>
Structure & function of the musculoskeletal system	/ 8	
Blood vessels/ Redistribution of blood	/ 5	
Cardiac output, stroke volume & heart rate	/ 4	<u>Mark /62</u>
Aerobic & anaerobic exercise	/ 5	
Structure & function of the cardio-respiratory system	/ 4	
The recovery process	/ 7	<u>%</u>
The effects of exercise	/ 8	
Longer answer questions (6 & 9 marks)	/ 15	

Answer all questions

For questions with four responses only **one** answer per question is allowed.

For each answer completely fill in the circle alongside the appropriate answer.

CORRECT METHOD



WRONG METHODS



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. 

Multiple-choice questions

Q1. Which of the following sports/ activities is **NOT** a type of AEROBIC respiration?

A Cycling

☐

B Swimming

☐

C Shot put

☐

D Marathon

☐

(1 mark)

Q2. Lactic acid occurs when an athlete's body is:

A Digesting a large meal

☐

B Working aerobically

☐

C Sitting still for a long period of time

☐

D Working anaerobically

☐

(1 mark)

Q3. Which of the following is not an immediate effect of exercise?

A Sweating increases

☐

B Resting heart rate decreases

☐

C Breathing rate increases

☐

D Feel hotter as your temperature increases

☐

(1 mark)

Q4. Which of the following best describes Excess Post-exercise Oxygen Consumption (EPOC)?

A Payback of oxygen after aerobic exercise

☐

B Waste product of anaerobic exercise

☐

C Payback of oxygen after anaerobic exercise

☐

D Build up of waste product in the muscle

☐

(1 mark)

Q5. One benefit of a cool down is:

A Reduces the chance of injury during activity

☐

B Reduces the risk of muscle stiffness after exercise

☐

C Increases lactic acid

☐

D Increases heart rate

☐

(1 mark)

Q6. Which of the following is **NOT** a SHORT-TERM effect of exercise:

- A** Muscle cramps
- B** Feeling nauseous
- C** Improved stamina
- D** Experience DOMS

(1 mark)

(Total 6 marks)

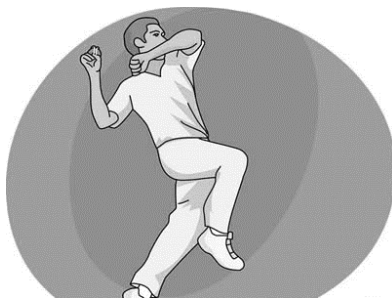
Structure & function of the musculoskeletal system

Q7. Explain the role of the muscular and skeletal system in producing movement. Give an example from physical activity in your answer.

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(5 marks)

Q8. The image shows a young cricketer bowling. The bowling action involves the use of many joints within the body.



8.1 Identify the type of synovial joint working at the knee.

(1 mark)

8.2 Outline how **two** of the features of the knee joint aim to prevent injury occurring.

1. _____

2. _____

(2 marks)

(Total 8 marks)

Blood vessels/ Redistribution of blood

Q9. Describe **two** STRUCTURES and **one** FUNCTION of an artery.

(3 marks)

Q10. What is the function of valves present in veins?

(1 mark)

Q11. Describe the process of vasodilation.

(1 marks)

(Total 5 marks)

Cardiac output, stroke volume & heart rate

Q12. Briefly explain the terms 'cardiac output' and 'stroke volume' and the relationship between them.

(3 marks)

Q13. What is the cardiac output of a performer who has a stroke volume of 80 mls and a heart rate of 70 beats per minute?

(1 mark)

(Total 4 marks)

Aerobic & anaerobic exercise

Q14. Distinguish between aerobic and anaerobic exercise

(2 marks)

Q15. What is lactic acid?

(1 mark)

Q16. What is Excess Post-exercise Oxygen Consumption?

(2 marks)
(Total 5 marks)

Structure & function of the cardio-respiratory system

Q17. Zack is a 16-year-old GCSE PE student. He is just about to play a game of basketball for his school team.

17.1 Zack's respiratory system will experience a number of changes before and during the game of basketball.

Define the terms tidal volume **and** residual volume.

(2 marks)

17.2 Outline what will happen to Zack's tidal volume **and** residual volume once exercise starts.

(2 marks)

(Total 4 marks)

The recovery process

Q18. List three different ways that recovery from exercise can be assisted.

1. _____
2. _____
3. _____

(3 marks)

Q19. After performing any period of training, a cool down is important.

Identify **two** parts of an effective cool down.

1. _____
2. _____

(2 marks)

Q20. Ice baths are another effective process used to recover from exercise.

How do ice baths help prevent DOMS?

(2 marks)

(Total 7 marks)

The effects of exercise

Q21. Identify **three** IMMEDIATE effects of exercise on the body.

(3 marks)

Q22. Describe **three** LONG-TERM effects of exercise on the body.

(3 marks)

Q23. Why might body shape change following repeated exercise?

(2 marks)

(Total 8 marks)

Extended answer questions

Q24. Explain the importance of redistribution of blood during a football match.

(6 marks)

[illegible]

Q 25. A good recovery routine will be important for an athlete. Describe the best way for an athlete recover after a hard training session or competition. Explain why a good recovery routine is necessary and how it will benefit their future performance in training or in competition. **(9 marks)**

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(Total 15 marks)

END OF QUESTIONS