

Practice Questions

OCR A-Level PE - Anatomy & Physiology

(Revision session on Thursday 5th May 2022, 4.00-5.30pm)

Please read before distributing to students.

Purpose of this document

The questions contained within this document are those being answered live by James Simms during the May 2022 revision series on YouTube. The questions do not form a mock exam or practice paper as a whole. Rather, they are a series of questions that cover a range of content and skills required by the Advance Exam Information (AEI) published by the exam board in February 2022. There has been no attempt to organise the questions so that a mock or practice paper is formed. Instead, the questions are presented in the order of the AEI.

This paper contains:

- Questions in AEI order
- Where possible, examples of extended writing
- No one-mark or multiple-choice questions

How should schools use these papers?

This paper has been constructed specifically for use in preparation for and during the live revision shows provided by James Simms in May 2022. I encourage students to attempt the questions in advance of the revision shows. Students will receive the mark schemes and model answers as part of the revision experience.

Mark schemes and model answers will be published as part of the live revision show.

We have provided students with plenty of writing space in each question, so that they can draft their answers, attempt questions multiple times or write additional information.

All questions are taken from ExamSimulator. Please note, there are hundreds of additional questions on ExamSimulator covering the AEI topics. ExamSimulator is a premium resource available via TheEverLearner.com.

I hope this helps both students and teachers in their exam preparations.

James Simms

Complete the table to analyse the long jump take-off action at the ankle. Ensure your responses are correctly linked to the relevant letter in your answer.

(4 marks)



Joint	Type of joint	Joint movement	Agonist	Plane of movement
Ankle	А	В	С	D

Complete the table to analyse the lunge action at the hip. Ensure your responses are correctly linked to the relevant letter in your answer.

2.

(4 marks)



Joint	Phase	Joint movement	Agonist	Type of contraction <u>during the</u> <u>downward motion</u>
11:	Left (front)	А	В	С
Hip	Right (back)	Extended	Gluteus maximus	D

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This video shows a volleyball player performing a spike.

Using your knowledge of the musculoskeletal system and movement patterns, analyse the following:

The ankle joints during the take-off for the spike.

The knee joints during the landing phase of the spike.

Evaluate the use of plyometric training for a volleyball player.

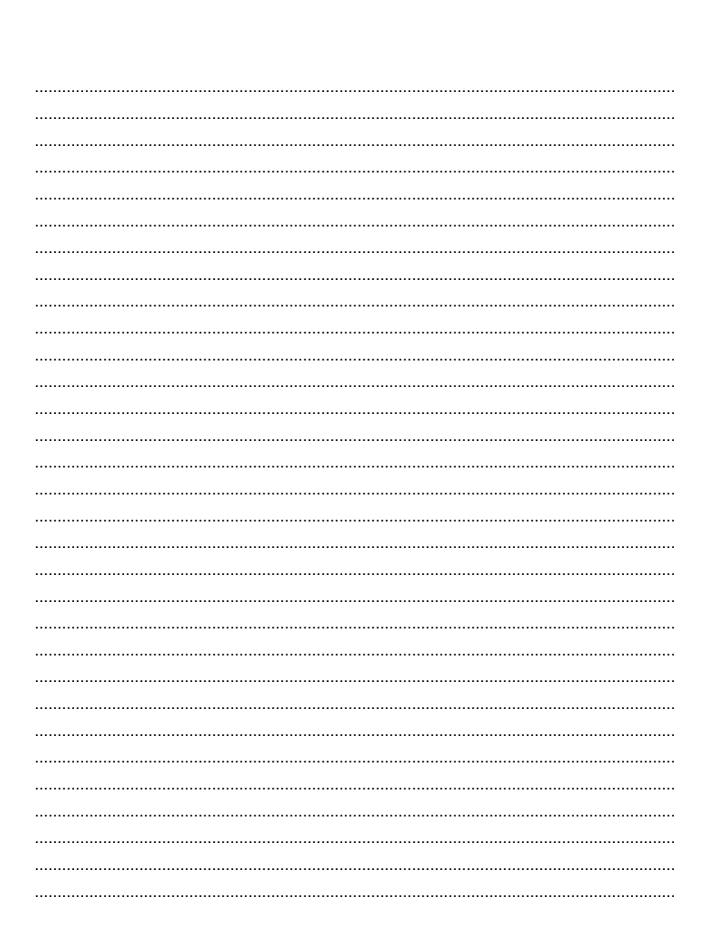
(20 marks)





Scan with your phone

CLICK TO VIEW VIDEO



(5 m

Venous blood is under very low pressure. Explain how venous return mechanisms ensure that sufficient blood arrives at the right atrium

Using your knowledge of the vascular shunt mechanism, explain how blood is redistribute	d
during recovery from exercise.	

(3 marks))

Chemoreceptors are one example of neural control of heart rate. Identify two other forms of neural control and explain how each helps to regulate he after the final whistle in a rugby match.	art rate
	(4 marks)
	•••••

Analyse this spirometer trace showing the breathing patterns of a track athlete and do the following:

7. Fating at a the greating tidal and track.

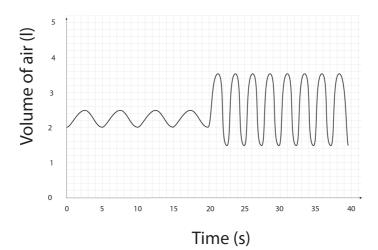
Estimate the resting tidal volume.

Estimate the exercising tidal volume.

Estimate the change in tidal volume between rest and exercise conditions.

(3 marks)

Spirometer Trace



(4 marks)

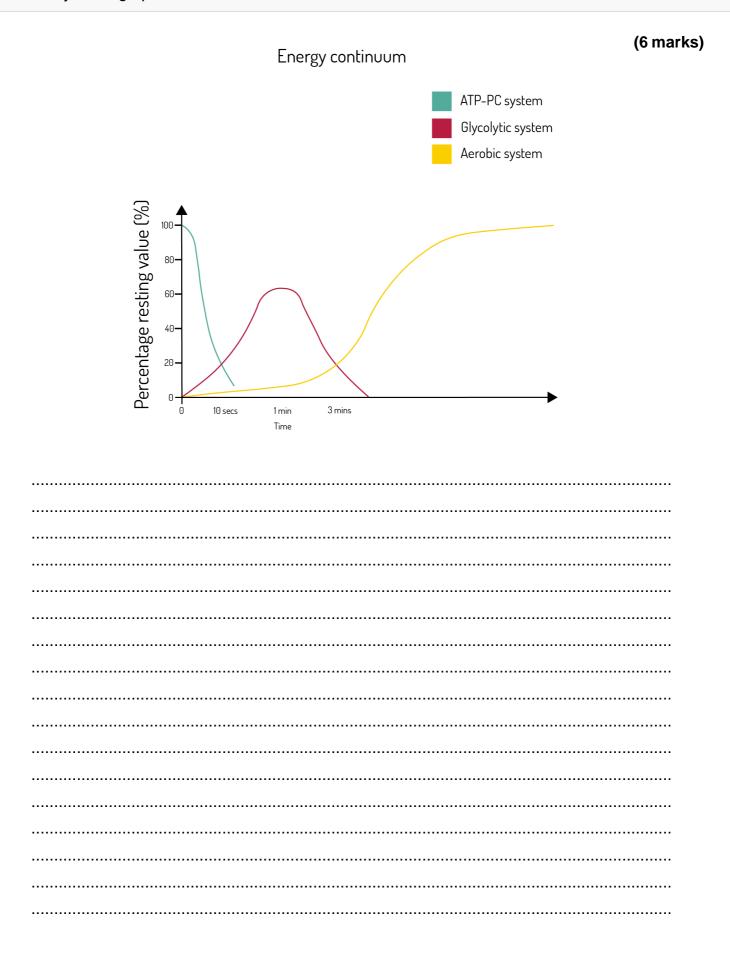
At the start of exercise, the diaphragm and external intercostals contract with more force to increase tidal volume.

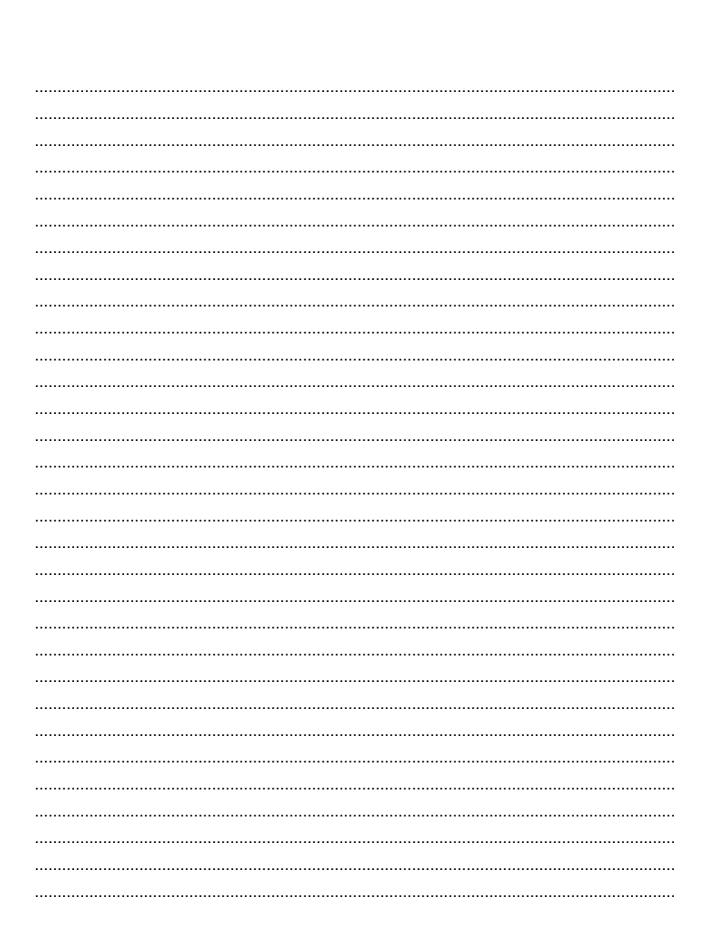
8.

Explain how this change is controlled.

The graph shows the relative contributions of the three energy systems during a sporting 9. performance.

Analyse the graph.





Footballers competing in Mexico City see a drop in performance due to the altitude.
Describe the short-term effects of performing at high altitude on the respiratory system.

(3 r	marks)
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