The EverLearner

National Mock Exams 2024

POWERED BY ExamSimulator

Edexcel A-level PE - Paper 1

Please read before distributing to students.

Purpose of this document

The questions contained within this document and the associated mark scheme are based on the data analysis performed by The EverLearner Ltd and published within the 2024 infographics. Please, note the following:

- We believe this paper has a very strong association with the actual external exam in 2024 in relation to command terms, skills, AO distribution, extended writing requirements and topics.
- However, this is categorically NOT a predicted paper. No-one can accurately predict an exam paper and we make no claim to this end.
- It is vital that you only use this document internally in your school/college. Publishing the document online or sharing it in any other way is strictly prohibited, as this will undermine the potentially educational experiences of students in other schools/colleges.
- Finally, please check the publication dates of the mark scheme and model answers for this paper as well as the associated revision sessions in April/May.

This paper contains:

- Questions in the format of Edexcel A-level PE Paper 1
- Short-answer questions
- Extended writing

How should schools use these papers?

This paper has been constructed specifically for use as a mock exam but can be used less formally as a practice paper or model paper. The content and skills of the paper will be developed within the free-to-air revision sessions offered by James Simms in April/May 2024.

Mark schemes and model answers will be published on the following dates:

- **Mark scheme**: Early March
- **Model answers**: April
- **Revision**: 30th of April, 16:30-18:00

All questions are available on **ExamSimulator**, where they can be practised multiple times in both online and printable format. **ExamSimulator** is a premium resource available via TheEverLearner.com and provides immediate diagnostics of student writing performance after every exam answer.

James Simms

The EverLearner

Subject	Physical Education
Course	Edexcel Linear GCE PE Scientific Principles
Time allowed	2 hours 30 minutes

First name	
Last name	
Class	
Teacher	

Title	Edexcel A-level PE Paper 1 Scientific Priciples National Mock Exam 2024

Guidance	• This paper is marked out of 140 marks. • You have 150 minutes (plus additional time for those who have Exam Access Arrangements). • Answer all questions. • A calculator is permitted for this exam. • This paper contains two 15-mark questions and five 8-mark questions. • Good luck.

Total marks	140

1. Define the following movements:
- Adduction.
- Rotation

Adduction is: _____

_____

Rotation is: _____

_____

Marks: [2]

2. Summarise **three** different types of contraction and provide a suitable sporting example of each.

Isometric _____

Sporting example _____

_____

Isotonic concentric _____

Sporting example _____

_____

Isotonic eccentric _____

Sporting example _____

_____

Marks: [6]

3. Outline the functions of **four** anatomical structures of the respiratory system.

Marks: **[4]**

4. Summarise the vascular shunt mechanism.

Marks: [4]

5. Outline the process of wave summation **and** its role in controlling the strength of a muscular contraction.

Marks: [5]

6. Describe strategies that a coach may encourage their athletes to use in order to speed up the recovery process after physical activity.

Marks: [4]

7. Summarise the structural and functional responses of the cardiovascular and respiratory systems when warming up prior to physical activity.

Marks: **[6]**

8. Identify the lever system operating at the elbow when throwing a javelin **and** what acts as:
- The fulcrum
- The effort
- The load

Type of lever: _____

Fulcrum: _____

Effort: _____

Load: _____

Marks: **[4]**

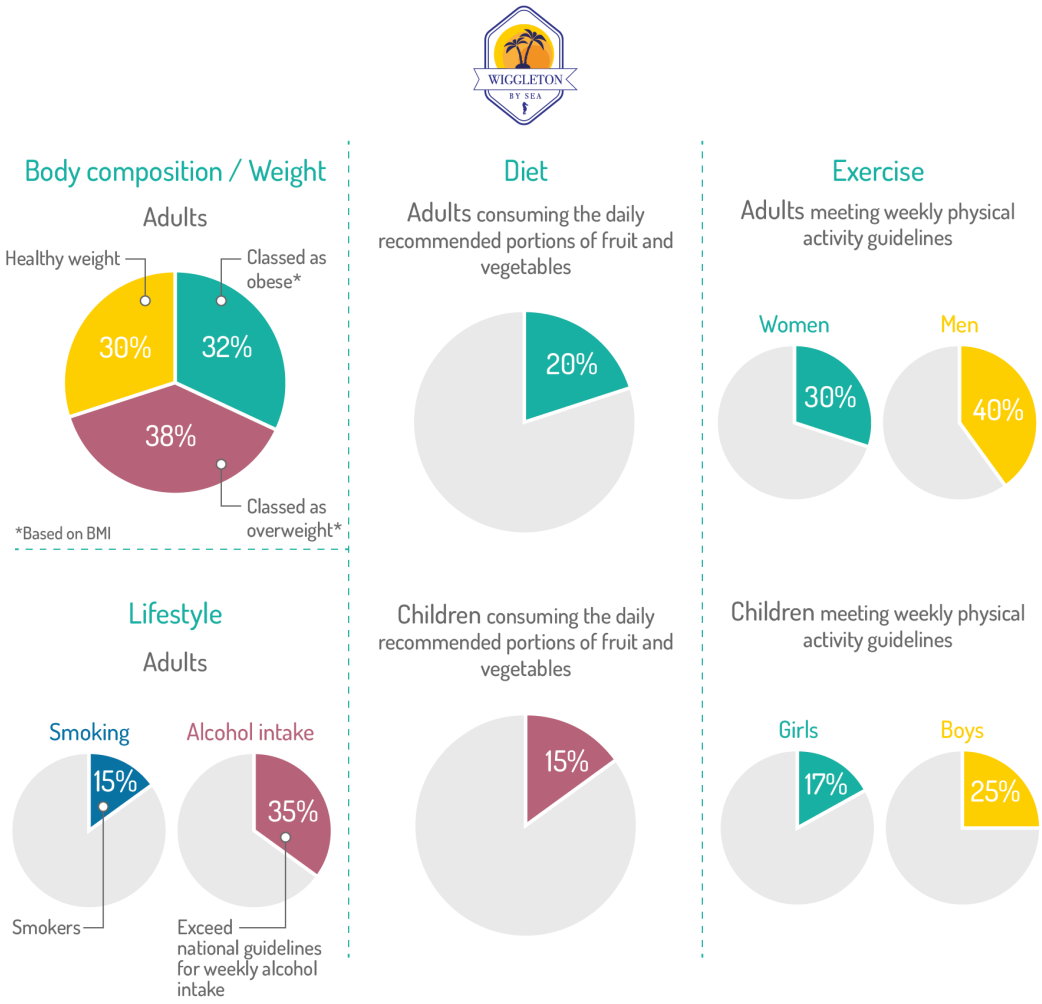
9. Summarise the possible benefits of a named sports supplement to a performer.

Marks: [3]

10. Analyse the contribution of the anaerobic energy systems in maximising performance.
Use sporting examples to support your answer.

Marks: [8]

11. The images below show information about lifestyle factors for people in Wiggleton-by-Sea. Examine the factors and how they could contribute to cardiovascular and respiratory issues.



Marks: [8]

12. Analyse the physiology of all three muscle fibre types and their suitability for different sports.
Use your knowledge and understanding from across the course of study to answer this question.

Marks: [15]

13. Define the term agility and give a sporting example.

Agility

Sporting example

Marks: [2]

14. Outline the protocol for the Margaria-Kalamen test.

Marks: [5]

15. Define submaximal aerobic fitness.

Marks: [1]

16. Using the FITT principle, explain how a performer could improve their aerobic fitness.

Marks: [4]

17. Identify **four** examples of sporting injuries.

Marks: [4]

18. Outline Newton's laws of motion.

Marks: [3]

19. Summarise two advantages and two disadvantages of fitness testing.

Marks: **[4]**

20. The table below shows data about a female high jumper who wants to improve her PB.
Identify the most appropriate fitness test for this performer.

Age	Resting HR	Maximum HR	Intensity
Years	BPM	BPM	%
22	54	195	90

Marks: [1]

21. Identify the predominant energy system when performing in the high jump.

Marks: [1]

22. Using Karvonen's theory, calculate the high jumper's heart-rate reserve.

Age	Resting HR	Maximum HR	Intensity
Years	BPM	BPM	%
22	54	195	90

Marks: [2]

23. Using the data in the table, calculate the high jumper's training heart rate.

Age	Resting HR	Maximum HR	Intensity
Years	BPM	BPM	%
22	54	195	90

Marks: [2]

24. Outline periodisation.

Marks: [3]

25. Analyse the factors that affect the horizontal displacement of a shot.

Marks: [8]

26. Discuss the use of rehabilitation strategies such as physiotherapy and ice treatments following an injury .

Marks: [8]

27. Examine the ways in which a marathon runner could manipulate their diet before a race and how this would affect their performance.

Marks: [8]

28. Evaluate the use of SAQ and fartlek training for a games player.

SAQ

Fartlek

Marks: [15]

END OF PAPER