



The EverLearner

**National Mock Exams 2023**

POWERED BY **ExamSimulator**

# Mark Scheme

## AQA GCSE PE – Paper 1

**Please read before distributing to students.**

### Purpose of this document

This document and the associated question paper are based on the data analysis performed by The EverLearner Ltd and published within the 2023 infographics. We are confident that:

- We believe this mark scheme has a very strong association with the actual external exam in 2023 in relation to command terms, skills, AO distribution, extended writing requirements and topics.
- However, this is categorically NOT a mark scheme for 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 model answers for this paper as well as the associated revision sessions in May.

### This mark scheme contains:

- Copy of each question for reference
- Marking guidance where appropriate
- Marking points containing alternative acceptable responses plus relevant assessment objective

### How should schools use this mark scheme?

The mark scheme has been constructed specifically for the exam paper used in The EverLearner's National Mock Exams from 2023. The model answers will be available on the 28th April and some of these questions will be discussed in the live revision show provided by James Simms (Wednesday 3rd May, 15:30-17:00 on [youtube.com/TheEverLearner](https://www.youtube.com/TheEverLearner)).

All questions/mark schemes are available on ExamSimulator. Please note, there are hundreds of additional questions and mark schemes on ExamSimulator covering the AQA GCSE PE topics and skills. Within the platform, the teacher is assisted with the marking and full diagnostic feedback is also provided. ExamSimulator is a premium resource available via TheEverLearner.com.

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

*James Simms*



<b>Subject</b>	
<b>Course</b>	AQA GCSE PE
<b>Time allowed</b>	1 hour 15 minutes

<b>Title</b>	AQA GCSE PE 9-1 Paper 1 National Mock Exam 2023
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<b>Guidance</b>	<ul style="list-style-type: none"><li>• This paper is marked out of 78 marks.</li><li>• You have 75 minutes (plus additional time for those who have Exam Access Arrangements).</li><li>• Answer all questions.</li><li>• A calculator is permitted for this exam.</li><li>• This paper contains a 6-mark question and a 9-mark question.</li><li>• Good luck.</li></ul>
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<b>Total marks</b>	78
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1. Which of the following is a function of the skeleton?

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Marking points (maximum 1)

(1) [AO 1] Option B/B/Protection of vital organs by flat bones

2. Which of the following are an antagonistic pair of muscles in the **legs**?

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Marking points (maximum 1)

(1) [AO 1] Option A/A/Gastrocnemius and tibialis anterior

3. Which type of blood vessel tends to have the largest lumen?

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Marking points (maximum 1)

(1) [AO 1] Option D/D/Veins

4. Which of the following sports performers relies most heavily on muscular endurance?

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Marking points (maximum 1)

(1) [AO 2] Option D/D/Olympic rower

5. Which of the following sporting movements is the best example of anaerobic exercise?

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Marking points (maximum 1)

(1) [AO 2] Option A/A/Defensive rebound in basketball

6. Define balance. Give a sporting example.

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Marking guidance

Accept other appropriate A02 examples of balance during performance. Accept A02 examples of dynamic balance.

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Marking points (maximum 2)

(1) [AO 1] Maintenance of the centre of mass over the base of support/Centre of mass over the base of support/Centre of mass above base

(2) [AO 2] Staying still for three seconds when doing a handstand in gymnastics/Staying still whilst in the ready position waiting to receive a serve in badminton/Staying still whilst holding an arabesque in dance

7. Justify the importance of balance to a handball player.

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### Marking guidance

Four marks for three justifications of the importance of balance in netball.

Accept other suitable justifications.

No marks for stating that balance is not relevant to handball.

Answers can indicate either static or dynamic balance.

Accept double negatives. For example, accept "With no balance, the player may not be able to stay in position to be able to shoot accurately."

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### Marking points (maximum 4)

(1) [AO 3] Defenders need to hold a balanced position in order not to be pushed out of the way

(2) [AO 3] Goalkeeper needs to be balanced before moving to make a save

(3) [AO 3] Passer needs to be balanced to provide a strong base when they throw the ball

(4) [AO 3] Dribbler needs to be balanced to move past opponents in control

8. This image shows the performance of a deadlift.  
Identify the movement pattern occurring at the knee in position A.

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### Marking points (maximum 1)

(1) [AO 2] A is flexion at the knee/A is flexion/Flexion

9. This image shows the performance of a deadlift.  
Identify *both* the **agonist** and the **antagonist** at the knee when the performer moves from position A to position B.
- 

### Marking guidance

Do not accept the answer linked to the wrong role. For example, "the quadriceps are the antagonist" is wrong.

Do not accept muscles operating at other joints. This question asks specifically about the knee.

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### Marking points (maximum 2)

- (1) [AO 2] Agonist is the quadriceps/Agonist quadriceps
- (2) [AO 2] Antagonist is the hamstrings/Antagonist hamstrings

10. This image shows the performance of a deadlift.  
Identify the type of muscle contraction occurring in the **agonist** of the knee when moving from position A to position B.  
Justify your answer.
- 

### Marking points (maximum 2)

- (1) [AO 2] The muscle contraction is isotonic concentric/Isotonic concentric/Concentric
- (2) [AO 3] The muscle is shortening under tension to be able to extend the knee/Shortening under tension for knee extension

11. Identify **two** elements of an effective cool-down.
- 

### Marking points (maximum 2)

- (1) [AO 1] Maintaining elevated breathing rate/Maintaining elevated heart rate/Walk or jog
- (2) [AO 1] Gradual reduction in intensity
- (3) [AO 1] Stretching/Stretch

12. Explain why a cool-down is beneficial to a badminton player.

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### Marking guidance

Do not accept benefits of a cool-down if they are not applied to a badminton player.

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### Marking points (maximum 3)

- (1) [AO 2] The cool-down allows the body to recover faster so the player can train without muscle soreness/Faster recovery to be able to train/Less muscle soreness the next day for training
- (2) [AO 2] The player will be able to compete again sooner/Can return to active training sooner/Fewer rest days before performing again
- (3) [AO 2] The cool-down causes the removal of lactic acid to offset feelings of DOMS/Quicker removal of carbon dioxide/Quicker removal of waste products
- (4) [AO 2] The player will not have stiff legs 24-48 hours after the match to continue to be able to jump high/Reduce soreness 24-48 hours after the match to still be able to lunge for the shuttlecock/The player will not have sore arms 24-48 hours after for effective arm rotation

13. Calculate the heart-rate training range for the badminton player in the image.

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### Marking points (maximum 3)

- (1) [AO 2] Maximum heart rate is  $220 - \text{age}$ / $220 - \text{age} = \text{maxHR}$ / $220 - 20 = 200$
- (2) [AO 2] Upper threshold is  $200 \times 0.9$ /Upper threshold is 180bpm/Upper threshold is 180bpm
- (3) [AO 2] Lower threshold is  $200 \times 0.8$ /Lower threshold is 160bpm/Lower threshold is 160bpm

14. Look closely at this image.  
Identify **both** muscle A **and** muscle B.
- 

Marking points (maximum 2)

- (1) [AO 1] A is the deltoid/A deltoid
- (2) [AO 1] B are the pectorals/B pectorals

15. The tibia is one bone that articulates at the ankle.  
Name the other two.
- 

Marking points (maximum 2)

- (1) [AO 1] Fibula
- (2) [AO 1] Talus

16. Name the type of joint found at the ankle.
- 

Marking points (maximum 1)

- (1) [AO 1] Ankle is a hinge joint/Hinge joint/Hinge

17. Describe the role of cartilage in a joint.
- 

Marking points (maximum 2)

- (1) [AO 1] Cartilage covers the ends of long bones/Cartilage covers the ends of bones/Cartilage is tough and fibrous
- (2) [AO 1] Cartilage absorbs shock/Stops shock/Acts as shock absorber
- (3) [AO 1] Cartilage prevents bones rubbing together/Cartilage reduces friction/Prevents friction
- (4) [AO 1] Cartilage provides cushioning/Cushion/Cushioning



18. Describe the protocol for the wall-throw test of coordination.

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Marking points (maximum 4)

- (1) [AO 1] Mark a line 2m from the wall/2 metres from the wall/Two metres away
- (2) [AO 1] Stand behind the line/Behind the line/Facing the wall
- (3) [AO 1] Underarm action throw the ball at the wall/Underarm throw at the wall/Underarm throw
- (4) [AO 1] Throw the ball with one hand and catch with the other/Throw with one catch with the other/Alternate hands
- (5) [AO 1] Count the number of successful catches/Measured in number of successful catches/Number of catches
- (6) [AO 1] In 30 seconds/Thirty seconds

19. Identify **four** short-term effects of exercise that occur up to 36 hours after exercise.

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Marking points (maximum 4)

- (1) [AO 1] Fatigue/Tiredness
- (2) [AO 1] Light-headedness
- (3) [AO 1] Nausea/Sickness
- (4) [AO 1] DOMS/Soreness/Pain
- (5) [AO 1] Cramp

20. Explain how a middle-distance runner could use **time** from FITT to progressively overload weight training.
- 

### Marking guidance

Only award each mark if the point has been applied to weight training. No application, no mark.

Accept practical examples of lifts/exercises as reference to weight training.

Do not accept any reference to frequency, intensity or type. For example, "lifting a greater % of 1RM" is wrong in the context of this question.

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### Marking points (maximum 3)

- (1) [AO 2] Train for longer/Increase how long you train/Increase number of exercises
- (2) [AO 2] Increase repetitions/Increase number of repetitions/Increase number of sets
- (3) [AO 2] Decrease recovery time/Recover faster/Faster recovery

21. Other than an ice bath, identify **three** recovery methods from vigorous exercise.
- 

### Marking guidance

Do not accept ice baths as already stated in the question.

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### Marking points (maximum 3)

- (1) [AO 1] Cool down
- (2) [AO 1] Stretching
- (3) [AO 1] Manipulation of diet/Diet manipulation
- (4) [AO 1] Rehydration
- (5) [AO 1] Massage

22. Discuss the use of an ice bath when recovering from sport.

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### Marking guidance

Sub max three for positive effects of an ice bath and sub max three for negative effects.

A "discuss" answer must have a balance of positives and negatives to achieve full marks. The balance can be 3 and 1.

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### Marking points (maximum 4)

- (1) [AO 3] Ice baths help to prevent DOMS/Ice baths reduce DOMS/Prevent DOMS
- (2) [AO 3] Ice baths reduce inflammation/Reduce swelling
- (3) [AO 3] Ice baths speed up the recovery process/Quicker recovery/Fast recovery
- (4) [AO 3] Fresh oxygenated blood is transported to the working muscles when leaving the bath to remove toxins/Removal of toxins/Encourages fresh oxygenated blood
- (5) [AO 3] Ice baths are uncomfortable/Ice baths are extremely cold and very challenging/Athletes avoid ice baths because they are painful
- (6) [AO 3] Ice baths are expensive and impractical/Could cause nerve damage/Ice baths are expensive
- (7) [AO 3] Ice baths are not accessible to everyone/Not accessible/Lack of access

23. This image shows a discus thrower preparing to throw.  
Identify **both** the plane of movement **and** the axis of rotation during the spin.

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### Marking points (maximum 2)

- (1) [AO 2] Transverse plane/Transverse
- (2) [AO 2] Longitudinal axis/Longitudinal

24. Look closely at this image of the heart.  
Identify the heart structures labelled A, B and C.
- 

Marking guidance

Only accept answers linked to the correct letters. For example, "A is the left atrium" is wrong.

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Marking points (maximum 3)

- (1) [AO 1] A is the right atrium
- (2) [AO 1] B is the right ventricle
- (3) [AO 1] C is the left atrium

25. Look closely at this image of the heart.  
Describe the role of the heart feature C.
- 

Marking points (maximum 2)

- (1) [AO 1] Receive oxygenated blood from the pulmonary vein
- (2) [AO 1] Push blood through the valve
- (3) [AO 1] Pass oxygenated blood into the left ventricle

26. Look at the data closely.  
Calculate the runner's exercising stroke volume.  
Include the correct units in your answer.
- 

Marking points (maximum 2)

- (1) [AO 2] Cardiac output divided by heart rate/Q divided by HR/24,000 divided by 160
- (2) [AO 2] 150ml/0.15l

27. State which classification of lever is operating at the ankle during plantar flexion.

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Marking points (maximum 1)

(1) [AO 1] Ankle is a 2nd class lever/2nd class/Second class

28. State **two** different sporting examples using a first-class lever system.

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Marking guidance

Accept sporting examples only. Do not accept gym-based examples such as a press up unless the movement is specific to the sport of weightlifting or equivalent. The mark scheme enables you to allocate two examples of elbow extension or one example of neck extension and one example of elbow extension.

Simply writing "elbow extension" or "neck extension" is not worth a mark as it is not a sporting example.

Note: Neck extension is not named on the AQA specification so we have enabled students to achieve both marks from the elbow movement only. However, neck extension examples are correct responses for this question thus their inclusion in the mark schemes.

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Marking points (maximum 2)

(1) [AO 2] Performance example 1 of elbow extension: throwing disciplines/Throwing a cricket ball in from the boundary/Rugby union line-out throw

(2) [AO 2] Performance example 2 of elbow extension: non-throwing disciplines/Set shot in basketball/Overhead triceps press when weightlifting

(3) [AO 2] Performance example of neck extension/Preparing to head a football/Looking up whilst performing a volleyball set

29. This image shows the fitness test results for four GCSE PE students.  
Analyse the students' performances and the normative data. How many other students share the same flexibility rating as Hannah.
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Marking points (maximum 2)

- (1) [AO 3] Hannah has a flexibility rating of above average/Above average
- (2) [AO 3] Two other students have a rating of above average/2 students/John and Alessandra

30.

Andre is a 17-year-old tennis player competing at county level.  
Justify the importance of taping and bracing and hydration as injury prevention methods for Andre.

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### Marking guidance



Refer to 6-mark level descriptors:

A02 is application to a tennis player.

For A03 credit other relevant justifications about the importance of taping and bracing and hydration to prevent injury.

The making points are indicative content.

Do not credit evaluative points as the command is justify so the answers needs to support the importance of the injury prevention technique. Please accept any suitable application and justifications and apply a level and a mark as per the level descriptions.

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### Marking points

- (1) [AO 1] Taping around a joint/Bracing a joint or muscle/Used when necessary to protect a weakness
- (2) [AO 2] Tennis involves lots of turning and twisting to return the ball/Need agility to twist/Joints being used frequently
- (3) [AO 2] Tennis involves lots of repetitive movements on the joints/Knee, hip and ankle joints used extensively
- (4) [AO 3] Taping or bracing is good as it will stabilise/Stabilise the joint to prevent further injury/Additional protection and support
- (5) [AO 3] The joints are less likely to dislocate/Connective tissue around the joints is stable/Reduced possibility of a tear, sprain or strain
- (6) [AO 3] Taping may lead to an increase in confidence and intrinsic motivation/More confidence/Player is reassured about a weak area
- (7) [AO 3] Taping and bracing leads to pain-free movement/Pain-free movement/Full range of movement is supported
- (8) [AO 1] Hydration is maintained with fluid intake/Fluid intake
- (9) [AO 1] Hydration takes place before, during and after an event
- (10) [AO 2] Tennis games last over a long period of time and the player will sweat to regulate body temperature/Game is a long period of time/Sweating
- (11) [AO 3] Hydration is important as fitness can deteriorate if the body is in a state of dehydration
- (12) [AO 3] Dehydration can lead to an increase in reaction times which could lead to mistimed shot
- (13) [AO 3] Dehydration can lead to an increase in muscle cramps which could increase muscular fatigue during a game/Quicker fatigue/Unable to keep up with play
- (14) [AO 3] Hydration is needed to reduce the chance of a headache which can ensure the player is focussed at all times

31.

A rugby league team use fitness tests to identify strengths and weaknesses. Discuss the suitability of the sit-and-reach test **and** the sit-up bleep test to assess the fitness levels of the team.

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## Marking guidance



Refer to 9-mark level descriptors:

To be awarded A02 marks, the application needs to be linked to a rugby-league team/player.

To be awarded A03 marks, each fitness test must be discussed. Discussion is likely to contain strengths and/or weakness of that test for rugby league.

The marking points are indicative content. Please accept any suitable application and discussion points and apply a level and a mark as per the level descriptions.

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## Marking points

- (1) [AO 1] Sit-and-reach test measures flexibility/Flexibility test/Measures suppleness
- (2) [AO 1] Using a measuring device/Using a sit-and-reach box/Using a bench and ruler
- (3) [AO 1] Result in centimetres/Outcome is a distance/Measure horizontal distance
- (4) [AO 2] Rugby league player needs flexibility at the hip joint to sprint/Lower body flexibility for running/Lower body flexibility for dodging tackles
- (5) [AO 2] Rugby league player needs shoulder flexibility to wrap the arms in a tackle/Upper body flexibility when scrummaging/Upper-body flexibility for passing and receiving the ball
- (6) [AO 3] Sit-and-reach test is suitable to identify baseline levels of flexibility of the lower back for a rugby team
- (7) [AO 3] Sit-and-reach test can be also used to monitor improvement during a training programme
- (8) [AO 3] SMART targets based on flexibility can be established once a test has been completed
- (9) [AO 3] Sit-and-reach test does not replicate the movements of rugby league
- (10) [AO 3] A rugby team includes different positions all of which may require slightly different levels of flexibility
- (11) [AO 3] A fly half may need more hip flexibility as they tend to be the kicker
- (12) [AO 3] The validity of the sit-and-reach test is low for a rugby team, as shoulder flexibility is not assessed
- (13) [AO 3] The reliability of the sit-and-reach test is also low, as there are many external factors which could affect the team test results



31. A rugby league team use fitness tests to identify strengths and weaknesses. Discuss the suitability of the sit-and-reach test **and** the sit-up bleep test to assess the fitness levels of the team.
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(14) [AO 1] Sit-up bleep test measures muscular endurance/Measures muscle endurance/Measures dynamic strength

(15) [AO 1] Using an audio recording

(16) [AO 1] Result in number of sit-ups completed/Outcome is a number of sit-ups/Measure the total number of sit-ups

(17) [AO 2] Rugby league player needs muscle endurance in the lower body for repeated phases of attack and defence/Lower-body muscle endurance for continuous running/Lower-body muscle endurance for keeping up with open play

(18) [AO 2] Rugby league player needs upper-body muscle endurance for repeated tackling/Upper-body muscle endurance to defend all six plays/Upper-body muscular endurance for repeated passing and receiving the ball

(19) [AO 2] Rugby league player needs whole-body muscle endurance to avoid muscle fatigue in the second half

(20) [AO 3] Muscle endurance is important in rugby but the sit-up bleep test only tests the abdominals

(21) [AO 3] The sit-up bleep test is not completed in a competitive environment, whereas the muscle endurance required by a rugby league team will always be under the pressure of the opposition

(22) [AO 3] Rugby league does require abdominal muscle endurance as the tackled player needs to get to their feet after a tackle

(23) [AO 3] Rugby teams may need to focus on other components of fitness in order to assess fitness levels such as speed and strength

(24) [AO 3] Rugby players need other fitness tests such as one-rep max or vertical jump/Accept named reference to other fitness tests

(25) [AO 3] Players diet can affect the results of the sit-up bleep test as they may not have eaten enough carbohydrates for energy

(26) [AO 3] Arousal levels of a player may be low and without optimum arousal they may perform poorly in a maximal fitness test

(27) [AO 3] Rugby league players require an entire battery of fitness tests, not just tests of flexibility and muscle endurance