



The EverLearner

National Mock Exams 2023

POWERED BY **ExamSimulator**

Mark Scheme

AQA A-Level 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 10th May, 17:00-18:30 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 A-Level 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



Subject	Physical Education
Course	AQA Linear GCE PE
Time allowed	2 hours

Title	AQA A-level PE Paper 1 - National Mock Exam 2023
--------------	--

Guidance	<ul style="list-style-type: none">• This paper is marked out of 105 marks.• You have 2 hours (plus additional time for those who have Exam Access Arrangements).• *Please note that the paper contains the Applied Anatomy and Physiology questions only from the 2023 National Mock Exam Paper 1.• Answer all questions.• A calculator is permitted for this exam.• This paper contains three 8-mark and three 15-mark question.• Good luck.
-----------------	---

Total marks	105
--------------------	-----

1. Look closely at this image.
Which of the following occurs during cardiovascular drift?
-

Marking points (maximum 1)

(1) [AO 1] Option C/C/Decreased venous return

2. During proprioceptive neuromuscular facilitation (PNF) training, the level of muscular tension is detected by a specialised cell.
Which specialised cell?
-

Marking points (maximum 1)

(1) [AO 1] Option A/A/Golgi tendon organ

3. Describe Starling's law of the heart during a warm-up.
-

Marking points (maximum 3)

(1) [AO 1] Starling's law states that stroke volume = venous return/Stroke volume is dependent on venous return/With no venous return, there is no stroke volume

(2) [AO 1] As intensity increases, venous return increases/More blood pumped into the heart/Increased end diastolic volume

(3) [AO 1] Leads to a greater stretch of the ventricles

(4) [AO 1] Increased stroke volume/Increased ejection fraction/Decreased end systolic volume

4. The image shows a goalkeeper making a save.
Complete the table for the **left shoulder** joint as the goalkeeper moves from position A to B.
-

Marking guidance

Both bones are required for the the first marking point. Mark answers in the correct order only.

Marking points (maximum 4)

- (1) [AO 1] A are humerus and scapula/A humerus and scapula
- (2) [AO 2] B is medial deltoid/B medial deltoid/B is deltoid
- (3) [AO 2] C is frontal plane/C frontal
- (4) [AO 2] D is sagittal axis/D sagittal axis

5. Analyse the role of EPOC following a 400m sprint race.
-

Marking guidance

Students must write about the impact of EPOC. For example, an answer stating that "phosphocreatine is resynthesised during the fast component" should not receive a mark. The student needs to include the timescale or the oxygen requirement to get the mark.

Marking points (maximum 3)

- (1) [AO 3] Intensity is very high so more oxygen deficit created/More oxygen deficit created
- (2) [AO 3] Alactacid component of EPOC restores phosphocreatine and ATP quickly/Fast component restores 50% of phosphocreatine within 30 seconds/Full phosphocreatine replenishment in three minutes
- (3) [AO 3] Approximately 1-4 litres of oxygen consumed during fast component/1-4 litres
- (4) [AO 3] Lactacid component of EPOC removes lactic acid which will have increased significantly during the race
- (5) [AO 3] Lactic acid removal takes longer and requires active recovery
- (6) [AO 3] Approximately 5-8 litres of oxygen consumed during slow component/5-8 litres

6. Evaluate the use of plyometric training for a basketball player.

Marking guidance

Refer to 8-mark level descriptors:



Marking points

- (1) [AO 1] Plyometric training involves an initial eccentric contraction/Muscle is preloaded/Muscle lengthens under tension
- (2) [AO 1] Followed by an amortisation phase/Energy is stored between the two contractions
- (3) [AO 1] Followed by a concentric contraction phase/Muscle shortens under tension
- (4) [AO 2] Basketballer would use lower body plyometric exercises such as bounding or hopping
- (5) [AO 2] Upper-body exercises such as medicine ball throws or press-ups with claps
- (6) [AO 2] Typically 12-15 reps of each exercise
- (7) [AO 3] Strength is the basketballer being able to jump higher to get a rebound
- (8) [AO 3] Strength is that the basketballer maintains muscle length and improves efficiency of movement
- (9) [AO 3] Strength is that the training can be specific to muscles in the legs, which are vital in most basketball skills/Specific to leg muscles for sprinting and jumping
- (10) [AO 3] Strength is that bounding activities replicate movements used in the shooting and rebounding techniques/Replicates bounding movements/Same movements used in plyometrics and basketball
- (11) [AO 3] Strength is that plyometrics recruits Type IIx muscle fibres which are critical in basketball
- (12) [AO 3] Strength is that plyometrics develops balance and core stability which are needed in rebounding/Balance and core stability are also developed/Take-off uses balance
- (13) [AO 3] Strength is that the reps and sets for plyometrics are similar to the continued explosive movements in basketball
- (14) [AO 3] Weakness is that plyometrics will not develop the flexibility needed in the shoulders to snatch the ball/Does not develop flexibility
- (15) [AO 3] Weakness is a high risk of injury, which may be unsuitable due to the repetitive and intense nature of basketball/High risk of injury could delay developments in the technique/Reversibility if injuries occur
- (16) [AO 3] Weakness is that plyometrics is very high intensity and does not work well in the recovery cycle between matches

6. Evaluate the use of plyometric training for a basketball player.

(17) [AO 3] Weakness is that plyometrics is not as suitable for younger players/Not suitable for less fit players/Not suitable for recreational players

7.

Analyse how the sympathetic **and** parasympathetic nervous systems are used to control breathing before, during and after a triathlon.

Marking guidance



Refer to 15-mark level descriptors:

Marking points

- (1) [AO 1] Controlled by the respiratory control centre in the medulla oblongata/RCC in the brain/Respiratory control centre
- (2) [AO 1] Sympathetic stimulation means increasing the force of contraction of respiratory muscles
- (3) [AO 1] Parasympathetic stimulation decreasing the force of contraction of respiratory muscles
- (4) [AO 1] RCC connected with chemoreceptors, baroreceptors and proprioceptors
- (5) [AO 2] To increase breathing rate, chemoreceptors detect an increase in carbon dioxide
- (6) [AO 2] Triathlon is an endurance event/Running, swimming and cycling will activate proprioception from information from muscles, joints and tendons
- (7) [AO 2] Baroreceptors detect change in blood pressure
- (8) [AO 3] Before a race, hormonal control affects the breathing rate
- (9) [AO 3] An increase in arousal and anticipation leads to an increase in adrenaline
- (10) [AO 3] Adrenaline increases sympathetic activity to increase breathing rate to increase oxygen uptake
- (11) [AO 3] A warm-up will activate sympathetic activity
- (12) [AO 3] During the race, sympathetic nerve impulses increase
- (13) [AO 3] Phrenic nerve is stimulated by the RCC to activate diaphragm and intercostal muscles to contract stronger and increase breathing rate
- (14) [AO 3] Excess carbon dioxide is expelled through increased expiration
- (15) [AO 3] Intercostal nerve activates the intercostal muscles and abdominals expel excess carbon dioxide
- (16) [AO 3] Stretch receptors are located in the lungs to avoid overinflation of the lungs
- (17) [AO 3] More oxygen will be directed to the working muscles due to vasodilation
- (18) [AO 3] After the race, breathing depth remains elevated for EPOC and replenishment
- (19) [AO 3] Baroreceptors sense a reduction in blood pressure which increases parasympathetic activity
- (20) [AO 3] Breathing depth will gradually decrease

7. Analyse how the sympathetic **and** parasympathetic nervous systems are used to control breathing before, during and after a triathlon.
-

(21) [AO 3] Breathing rate immediately decreases at the end of performance

8. Which of the following is an accurate example of **bilateral** transfer in football?
-

Marking points (maximum 1)

(1) [AO 2] Option D/D/Passing with both feet

9. Which of the following is an example of knowledge of results feedback in netball.
-

Marking points (maximum 1)

(1) [AO 2] Option A/A/The centre pass led to a goal 12 times in the quarter

10. Describe insight learning.
-

Marking points (maximum 3)

(1) [AO 1] Also known as Gestaltist theory

(2) [AO 1] Performers uses existing knowledge to form an idea of how to solve a problem/Problem-solving from previous experience/Problem-solving

(3) [AO 1] Features the whole task/Wholeness

(4) [AO 1] Used largely in realistic scenarios/Discovery learning

(5) [AO 1] Solving the problem leads to the skill being remembered/Learner understands the requirements of a skill

(6) [AO 1] A novice may struggle due to lack of sporting experience

(7) [AO 1] Creates a eureka moment

11. Define manual guidance.
Give a sporting example of the use of manual guidance.
-

Marking guidance

Please accept suitable examples of manual guidance in sport. Do not accept reference to mechanical guidance or the use of physical aids.

Marking points (maximum 2)

- (1) [AO 1] Manual guidance involves physically supporting a performer during a movement/A coach guiding a performer through a movement/Physical support
- (2) [AO 2] Holding a gymnast in a balanced position/Guiding the body through a vault/A coach guiding the arm movement required of a tennis forehand

12. Explain how chunking can be used to improve information processing by a handball player.
-

Marking points (maximum 2)

- (1) [AO 2] Chunking is breaking the defending skill into smaller parts such as footwork patterns/Breaking the arm action up from the rest of the skill/Focussing on balance only
- (2) [AO 2] Opportunity for extrinsic feedback
- (3) [AO 2] Processing of the defensive skill becomes more fluent/Faster processing of chunked information

13. Evaluate the use of progressive part practice for a rock climber.

Marking points (maximum 3)

- (1) [AO 3] Progressive part practice would be beneficial, as parts of the wall can be isolated so the climber can master the climb in sections
- (2) [AO 3] The climber can use a process of chaining so the climber feels confident with one part of a climb before moving onto the next part
- (3) [AO 3] The motor programmes and schema are fully developed so the climber can complete the climb with minimum errors
- (4) [AO 3] However, the climber may not feel fluent when divided into parts causing a lack of kinaesthetic awareness of the full climb
- (5) [AO 3] Progressive part practice can be time-consuming and the climber may become bored and frustrated, hindering progression
- (6) [AO 3] A climb is a discrete skill with a clear beginning and end. This practice may feel inappropriate by being broken up in mini parts

14. Evaluate the use of operant conditioning by a trampolining coach working with beginners.

Marking guidance



Refer to 8-mark level descriptors:

Marking points

- (1) [AO 1] Operant conditioning is a form of behaviourism/Associationist theory
- (2) [AO 1] Based on S-R bonds
- (3) [AO 1] Behaviour-shaping occurs through reinforcement and punishment/Positive reinforcement/Negative reinforcement
- (4) [AO 1] Operant conditioning often begins with trial and error learning/Trial and error
- (5) [AO 2] Trampolining coach will set up an environment to cause a particular response
- (6) [AO 2] Coach makes the performers bounce nearer to the front edge of the bed to discourage forwards travel/Encourage vertical bouncing
- (7) [AO 2] Coach uses praise as a form of positive reinforcement when not travelling
- (8) [AO 3] Praise is excellent for strengthening the correct S-R bond
- (9) [AO 3] The beginner is more likely to repeat the correct response and not travel when bouncing
- (10) [AO 3] Positive reinforcement needs to be specific and statements like "Well done" are too generic
- (11) [AO 2] Coach removes coaching points as a form of negative reinforcement when the jumper no longer travels
- (12) [AO 3] Negative reinforcement causes the correct S-R bond to be formed
- (13) [AO 3] When the jumper manages not to travel, a motor programme is formed in the LTM
- (14) [AO 3] However, negative reinforcement is not as powerful as positive
- (15) [AO 2] Coach uses punishment by asking the jumper to leave the bed if they do travel
- (16) [AO 3] The S-R- bond for the incorrect skill is weakened or broken
- (17) [AO 3] However, punishment could lead to drops in motivation if overused
- (18) [AO 3] Effective coaching involves the use of all three forms of reinforcement

Marking guidance



Please accept drawings of the Inverted U theory for AO1.

Refer to 15-mark level descriptors:

Marking points

- (1) [AO 1] Choice reactions are when there are numerous possible alternative responses to a stimulus
- (2) [AO 2] Choice reactions occur when a sprinter needs to choose when to set off as their teammate approaches
- (3) [AO 1] Simple reactions are when there is only one possible response to a stimulus
- (4) [AO 2] Simple reactions occur when the sprinter on the first leg responds to the gun
- (5) [AO 1] Inverted U theory describes the relationship between arousal level and performance quality
- (6) [AO 2] At low levels of arousal, sprinters may react too slowly
- (7) [AO 2] At moderate arousal levels, sprinters should achieve their fastest reactions
- (8) [AO 2] At high arousal levels, sprinters may false-start or go too early
- (9) [AO 3] Choice reactions are only important for leg 2, 3 and 4
- (10) [AO 3] For these performers, being out of the optimal zone may cause them to leave too early/Drop the baton/Run out of lane
- (11) [AO 3] Simple reactions are only relevant for the first leg
- (12) [AO 3] For this performer, being overaroused may cause a false start
- (13) [AO 3] Selective attention is a key requirement for the sprinter on leg one/Must ignore all other stimuli but the gun
- (14) [AO 3] Sprinters on the first leg must focus more inwardly compared to those on the other legs
- (15) [AO 3] Because sprinting is a gross skill, there may be a shift to the right in the inverted U
- (16) [AO 3] But a shift too far right will cause hypervigilance and the missing of relevant cues

16. Look closely at this image.
Which of the following is a **social** benefit of increasing participation in regular exercise?
-

Marking points (maximum 1)

(1) [AO 1] Option D/D/Collaboration with others

17. Look closely at this image.
Which of the following led to the emergence of more elite female football performers?
-

Marking points (maximum 1)

(1) [AO 1] Option B/B/Increased media coverage of women's football

18. State **three** characteristics of real tennis.
-

Marking guidance

Mark the first three answers only.

Marking points (maximum 3)

(1) [AO 1] Upper-class participation/Only available to the upper class/Was reserved just for the upper class

(2) [AO 1] It had a high moral code/Non-violent/Played in a civilised manner

(3) [AO 1] Highly literate set of rules/Had a clear set of structured rules/Involved a complex set of rules

(4) [AO 1] Used purpose-built facilities/Required specialist facilities and equipment/Was expensive to play

(5) [AO 1] Required high levels of skill/Involved complex techniques that needed to be used/Was very demanding on skill levels

19. Explain how secondary socialisation can **lower** participation levels in female sport.

Marking points (maximum 3)

- (1) [AO 2] Immediate family may not watch sport, discouraging participation/Parents may not play or watch sport/Siblings may be involved in other hobbies
- (2) [AO 2] Family may not initiate physical activity in the home/Physical activity discouraged in the home/Family had a negative experience with physical activity
- (3) [AO 2] Parents may be directly involved with other hobbies/Parents have different commitments/Parents have no time or money to promote physical activity
- (4) [AO 2] Friends and peers have different hobbies/Peers are not supportive of participation in sport and physical activity/Peers encourage activities away from sport
- (5) [AO 2] Studying at school is seen as more important and takes away from time to be physically active

20. Define discrimination.

Marking points (maximum 1)

- (1) [AO 1] The unfair treatment of a person to make a distinction/Act on a prejudice for a minority group

21.

Look closely at the data in this image and use it to evaluate this statement:
"Ethnic discrimination is a feature of sport in Wiggleton-by-Sea."

Marking guidance

Sub max two marks for supporting the statement.

Sub max two marks for disagreeing with the statement.

The summary points can be either.

Marking points (maximum 3)

(1) [AO 3] Non-white people are underrepresented in all roles in sport

(2) [AO 3] Non-white people are dramatically underrepresented in admin and coaching roles

(3) [AO 3] Non-white people may experience prejudice and be discouraged from participation

(4) [AO 3] However, the data does not provide any causes for the trends

(5) [AO 3] Cultural differences may account for some differences in the statistics

(6) [AO 3] Therefore, it is likely that discrimination is occurring but further research would be required to prove this/Town of Wiggleton should commission further research in this area

22. Evaluate the impact of the Church on the development of association football **and** lawn tennis from 1850 to 1900.

Marking guidance



Refer to 8-mark level descriptors:

Marking points

- (1) [AO 1] Most of the population lived in cities by 1850/Urbanisation had occurred
- (2) [AO 1] Church attendance rose between 1850 and 1900
- (3) [AO 1] Association football was codified by 1863
- (4) [AO 1] Lawn tennis was developed between 1874 and 1877
- (5) [AO 1] Churches were available in every urban parish
- (6) [AO 2] Churches provided their grounds for physical activity
- (7) [AO 2] Churches supported the formation of Sunday school teams
- (8) [AO 2] Church supported the new versions of sport as expressions of muscular Christianity
- (9) [AO 2] Church established YMCA and Boys brigades
- (10) [AO 3] Teams such as Aston Villa formed as Church teams
- (11) [AO 3] Led to opportunities for competition between Church teams
- (12) [AO 3] This led to an increase in attendance at church
- (13) [AO 3] Church believed that association football was civilising for the working classes
- (14) [AO 3] However, other providers of football such as factories meant that many working-class people did not attend church
- (15) [AO 3] Church supported the growth in lawn tennis as a respectable game
- (16) [AO 3] Church was not offended by female athleticism in tennis
- (17) [AO 3] Lawn tennis was seen as wholesome for middle-class people
- (18) [AO 3] Working-class people did not have access to lawn tennis even via the church

Marking guidance



Refer to 15-mark level descriptors

Marking points

- (1) [AO 1] Sexism is a barrier/Sexism/Discrimination
- (2) [AO 1] Myths and stereotypes are barriers
- (3) [AO 1] Negative self-image is a barrier/Lack of confidence
- (4) [AO 1] Fewer sponsorship opportunities is a barrier/Lack of sponsorship
- (5) [AO 1] Lack of time is a barrier/Commitment to family
- (6) [AO 1] Fewer role models in coaching roles is a barrier/Lack of role models
- (7) [AO 1] Less media exposure of women in coaching roles is a barrier
- (8) [AO 1] Channeling of women into female-appropriate sports only is a barrier
- (9) [AO 1] National governing bodies are national partners
- (10) [AO 2] NGBs write whole sport plans that target female coaching/Key performance indicators for females qualifying as coaches
- (11) [AO 1] Youth Sports Trust is a national partner
- (12) [AO 2] YST develops leadership skills in girls at a younger age/Girls active programme
- (13) [AO 1] Women in Sport is a national partner
- (14) [AO 2] Women in Sport commission research about female participation levels/Publish data trends
- (15) [AO 2] Women in Sport work closely with other partners
- (16) [AO 1] Sport England is a national partner
- (17) [AO 2] Sport England fund all governing bodies based on their success or failure to meet targets/Review whole-sport plans
- (18) [AO 1] This Girl Can is a national partner
- (19) [AO 2] This Girl Can run national campaigns to challenge stereotypes
- (20) [AO 3] High-profile coaches such as Emma Hayes or Serena Wiegman receive more media coverage
- (21) [AO 3] Better mentoring and support programmes for female coaches
- (22) [AO 3] Increased confidence for female coaches to apply for the top roles/Rise in esteem
- (23) [AO 3] More accessible female role models can inspire others

(24) [AO 3] Senior coaching roles become paid positions/Full-time positions

(25) [AO 3] Greater social acceptance of females in senior roles

(26) [AO 3] We may be approaching a time where female coaches transition into senior roles in male sport
