



The EverLearner

**National Mock Exams 2024**

POWERED BY **ExamSimulator**

# Mark Scheme

## WJEC GCSE PE Paper

**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 2024 infographics. Please, note the following:

- We believe this mark scheme has a very strong association with previous WJEC GCSE PE exams 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 April.

### 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 2024. The model answers will be available in early April and many of these questions will be discussed in the live revision show provided by James Simms (Wednesday 24th of April, 16:30-18:00 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 IGCSE 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>	Physical Education
<b>Course</b>	WJEC GCSE PE
<b>Time allowed</b>	2 hours 0 minutes

<b>Title</b>	WJEC GCSE PE National Mock Exam 2024
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<b>Guidance</b>	<ul style="list-style-type: none"><li>• This paper is marked out of 120 marks.</li><li>• You have 120 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>• Good luck.</li></ul>
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<b>Total marks</b>	120
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1. This image shows a GCSE PE student based in Aberaeron in Ceredigion, West Wales.

Explain why a GCSE PE student needs to maintain an energy balance during Year 11.

Marking points **(maximum 4)**

(1) [AO 2] Energy intake should equal energy expenditure over time

(2) [AO 2] Student needs sufficient calories to attend school, study and take part in recreation

(3) [AO 2] Student is active in PE lessons and needs more calories

(4) [AO 2] If they work or cycle to school, they need additional calories to fuel this

(5) [AO 2] However, stress of Year 11 could lead to overeating

(6) [AO 2] Need to study in Year 11 may encourage the student to be less active

(7) [AO 2] Overall, the student needs to consume a consistent number of calories AND stay active

2. Identify **two** nutrients that can provide lots of energy to a GCSE PE student.

Marking guidance

Do not accept reference to protein. Protein is capable of providing only very small quantities of energy in extreme conditions.

Marking points **(maximum 2)**

(1) [AO 1] Carbohydrates

(2) [AO 1] Fats/Lipids

**3.** Explain how attending an extracurricular club can positively affect the social health of a GCSE PE student.

Marking points (**maximum 3**)

(1) [AO 2] Increased opportunity to meet new people/Increased opportunity to make friends/Increased opportunity to develop long-term friendships

(2) [AO 2] Opportunity to cooperate with others as part of a team/Cooperating with others in a club/Cooperating with others

(3) [AO 2] Opportunity to develop teamwork skills/Develop skills as part of a team/Teamwork

(4) [AO 2] Opportunity to develop leadership skills/Leading others in a team/Leadership skills

**4.** Identify feature D **and** feature F of the respiratory system and explain how both contribute to exercise.

Marking guidance

[6-Mark Guidance](#)



Marking points (**maximum 6**)

(1) [AO 1] Feature D is a bronchus/Bronchi

(2) [AO 3] Bronchi enter each lung

(3) [AO 3] Bronchi separate air into left and right

(4) [AO 1] Feature F is an alveolus/Alveoli

(5) [AO 3] Alveoli are the site of gaseous exchange/Diffusion/Gaseous exchange

(6) [AO 3] Alveoli specifically structured for rapid and large scale diffusion of gases

5. The table shows a range of cardiac values for a group of GCSE and A-level PE students taking part in a practical lesson. Identify the following:

- The oldest participant
- The youngest participant
- The participant that is likely to be the most aerobically fit
- The missing value

Marking points (**maximum 4**)

- (1) [AO 1] Angharad is the oldest participant
- (2) [AO 1] Cerys is the youngest participant
- (3) [AO 1] Celyn is likely to be most aerobically fit
- (4) [AO 1] Missing value is 114

6. Look closely at this image. Identify feature A, feature B **and** feature C.

Marking guidance

Only accept answers correctly linked to the relevant label. For example, "A is the left atrium" and "left atrium" are both wrong.

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

7. Explain why many 16-year-old people stop participating in regular physical activity in Wales.

### Marking guidance

Do not accept the factors in isolation. Each factor should be explained. Accept other appropriate explanations.

### Marking points (maximum 4)

- (1) [AO 2] Gender, because more females drop out than males
- (2) [AO 2] Society, because 16-year-olds have high demands on their time especially for studying
- (3) [AO 2] Peers, because teenagers are likely to follow the behaviours of their friends
- (4) [AO 2] Cost, because attending a gym or club can be expensive/Lack of disposable income/Not yet earning
- (5) [AO 2] Access, because they may no longer take part in exercise twice weekly PE
- (6) [AO 2] Role models, because they may not have examples to aspire to

8. Identify **one** strategy a school could employ to improve participation of 16-year-old students. Explain how the strategy could impact students.

### Marking guidance

Accept other relevant school strategies but the strategy must relate to a school environment. Accept other relevant explanations.

### Marking points (maximum 3)

- (1) [AO 1] Extracurricular clubs/Compulsory PE in sixth form/Recreational clubs as well as sports
- (2) [AO 2] Greater choice of participation
- (3) [AO 2] Creating a culture of movement
- (4) [AO 2] Extending provision beyond 16 years old

**9.** Explain why intrinsic motivation to be active is an important factor for teenagers.

Marking points **(maximum 2)**

- (1) [AO 2] Intrinsic motivation is more important than extrinsic
- (2) [AO 2] Intrinsic motivation is the basis of making positive choices
- (3) [AO 2] Intrinsic motivation does not rely on anyone else

**10.** The image shows Non Stanford, a Team GB and Welsh elite triathlete. Identify the components of fitness that Non has tested according to the image.

Marking points **(maximum 3)**

- (1) [AO 1] A is flexibility
- (2) [AO 1] B is CV endurance
- (3) [AO 1] C is agility



**11.** Explain why fitness tests are important to an athlete like Non Stanford.

Marking guidance

[6-Mark Guidance](#)



Marking points (**maximum 6**)

- (1) [AO 1] Show a starting level of fitness before the training programme/Establish baseline data/Measure the starting level
- (2) [AO 2] Non can know the correct intensity of training after a close season
- (3) [AO 1] Inform training requirements/Give context to each training unit/Shows what needs to be done in training
- (4) [AO 2] Non can plan training based on her results
- (5) [AO 1] Compare against normative data/Compare to national average/Comparing against norms
- (6) [AO 2] Non can know where she is against elite normas
- (7) [AO 1] Motivate athletes/Set goals/Set SMART targets
- (8) [AO 2] Non can work continuously towards her fitness test goals
- (9) [AO 1] Provides variety to training programmes/Increased variance/More varied experience in the programme
- (10) [AO 2] Non can work on both CV endurance and speed

**12.** Evaluate the use of continuous training to improve CV endurance.

Marking points (**maximum 2**)

- (1) [AO 3] Strength is that it is simple and cheap
- (2) [AO 3] Strength is it is easy to monitor intensity
- (3) [AO 3] Strength is it can be done anywhere
- (4) [AO 3] Weakness is that it can be tedious
- (5) [AO 3] Weakness is that it can cause overuse injuries
- (6) [AO 3] Weakness is that it is time-consuming

**13.** Other than continuous training, identify **two** training methods that could be used for CV endurance.

Marking points (**maximum 2**)

(1) [AO 1] Fartlek

(2) [AO 1] HIIT/Aerobic intervals

**14.** Explain how Non Stanford could apply the principle of reversibility to her training.

Marking points (**maximum 2**)

(1) [AO 2] Avoid long periods of inactivity/Train regularly

(2) [AO 2] Avoid overtraining/Avoid too much overload

(3) [AO 2] Avoid injuries

**15.** Explain how media coverage influences the choices that athletes make.

Marking guidance

Accept other relevant influences of the media on sports performers.

Marking points (**maximum 2**)

(1) [AO 2] Can apply pressure to athletes

(2) [AO 2] Can provide athletes with an opportunity to be famous

(3) [AO 2] Can be a way of an athlete raising their profile

**16.** Identify the missing features of the basic information processing model **and** explain how they apply to the cycling phase of Non Stanford's racing.

### Marking guidance

Accept other examples of inputs and outputs. However, do not credit any descriptions of decision-making.

### Marking points (maximum 4)

- (1) [AO 1] A is input
- (2) [AO 2] Non must see the spaces between riders and where to steer on the road
- (3) [AO 1] B is output
- (4) [AO 2] Non responds to other riders by steering left or right

**17.** Explain how imagery could improve Non Stanford's performances.

### Marking guidance

Sub max one A01 and one A02 mark.

### Marking points (maximum 2)

- (1) [AO 1] Increased motivation
- (2) [AO 2] Non will fight harder to finish on the podium
- (3) [AO 1] Improved information processing
- (4) [AO 2] Non will be more aware of her racing situation
- (5) [AO 1] Increased focus
- (6) [AO 2] Non will concentrate fully on the race and not on external information

**18.** Please look closely at this image. Complete a movement analysis of the elbow joint as the footballer throws the ball.

### Marking points (maximum 3)

- (1) [AO 3] Type of joint- Hinge/Hinge joint
- (2) [AO 3] Type of movement- Flexion/Elbow flexion
- (3) [AO 3] Agonist- Biceps

**19. Define stroke volume.**

Marking guidance

Do not accept "per minute". Only accept "per beat".

Marking points **(maximum 1)**

(1) [AO 1] Amount of blood pumped out of the heart per contraction/Amount of blood pumped out of the left ventricle per contraction/Amount of blood pumped out of the heart per beat

**20. Explain why stroke volume increases during exercise.**

Marking points **(maximum 2)**

(1) [AO 2] Increased venous return/Venous return/More blood returns from body to the heart

(2) [AO 2] Increased demand for blood supply to working muscles/Working muscles require oxygen

(3) [AO 2] Increased force of contraction/Increased ventricular contraction to increase blood supply to working muscles

**21.** Other than an increase in stroke volume, explain **one** other short-term impact of exercise on the heart.

### Marking guidance

Sub max one mark for identification of short-term effect. Sub max two marks for explanation of impact.

### Marking points (maximum 3)

- (1) [AO 1] Increased heart rate/Heart rate goes up/Heart beats more often
- (2) [AO 1] Increase in cardiac output/Cardiac output goes up
- (3) [AO 1] Increase in blood pressure/Blood pressure goes up
- (4) [AO 3] Heart rate increases as a result of demand for oxygen to the working muscles/Heart rate increase to get blood to the working muscles
- (5) [AO 3] Cardiac output is the volume of blood ejected from left ventricle per minute/ $\text{Cardiac output} = \text{HR} \times \text{SV}$  so will increase if heart rate and stroke volume increase
- (6) [AO 3] Blood has to move through the arteries and veins more forcefully/Volume of blood passing through veins and arteries increases, which increases blood pressure

**22.** Look closely at the options. Identify which percentage range is in the aerobic training zone.

### Marking points (maximum 1)

- (1) [AO 1] Option C/C/70-80% of MHR

**23.** Explain why agility **and** flexibility are important to the female footballer during a match.

### Marking guidance

Accept other suitable examples of agility and flexibility for an outfield player in football. Do not accept references to goalkeeping skills, as this is not the performer shown in the image.

### Marking points (maximum 2)

(1) [AO 2] Agility is needed to dribble past an opponent at speed/Agility is needed to change direction quickly based on the flight of the ball/Agility is needed to change direction when moving away from a marker

(2) [AO 2] Flexibility is needed to stretch when making a slide tackle/Flexibility is needed to gain a full range of movement at the shoulder joint when taking a throw-in/Flexibility is needed at the hip to lean forwards or backwards when taking a shot at goal

**24.** Identify **three** phases of a warm-up.

### Marking points (maximum 3)

(1) [AO 1] Pulse raiser/Movement to raise his pulse/Movement to increase the heart rate

(2) [AO 1] Mobility exercise/Mobilisation of the joints/Joint mobilisation

(3) [AO 1] Game-related activities/Skill-related practice/Game-specific phase

**25.** Identify the correct type of guidance in this image.

### Marking points (maximum 1)

(1) [AO 1] Option A/A/Manual guidance

## 26. Evaluate the role of other types of guidance for the performer.

Marking guidance

[6-Mark Guidance](#)



Marking points (**maximum 6**)

- (1) [AO 1] Verbal guidance is a spoken instruction/Verbal guidance is describing an action/Verbal guidance is an explanation of how to perform an activity
- (2) [AO 1] Visual guidance is the use of demonstrations/Videos/Drawings
- (3) [AO 1] Mechanical guidance is the support provided by the use of equipment/Mechanical device/Mechanical support
- (4) [AO 3] An advantage of verbal guidance is that the process is quick/It is immediate/It is efficient
- (5) [AO 3] An advantage of verbal guidance is that the coach's descriptions help to cause an understanding of the skill/Performers understand the requirements/Performers will understand what is right and wrong about this skill
- (6) [AO 3] An advantage of verbal guidance is that the guidance could be motivating/Could include positive feedback/Guidance could encourage the performers
- (7) [AO 3] A disadvantage of verbal guidance is that the coach's information could be incorrect/Coach could mislead performers/Coaching points could be inaccurate
- (8) [AO 3] A disadvantage of verbal guidance is that the performer does not create a mental picture/Beginners need a mental picture/Does not allow performers to visualise the skill
- (9) [AO 3] An advantage of visual guidance is that it creates a mental picture for performers/Performers can visualise the skill/Performers have a physical model to copy
- (10) [AO 3] An advantage of visual guidance is that visual guidance is effective for beginner performers/Excellent for novices/Works well with cognitive-stage performers
- (11) [AO 3] An advantage of visual guidance is that visual guidance can be done with groups/Demonstrations can be for a large group/Large group
- (12) [AO 3] A disadvantage of visual guidance is that it does not create a feeling of the correct movement/No kinaesthesia/Performers only see the correct model rather than feel it
- (13) [AO 3] A negative of visual guidance is that the demonstration may contain mistakes/Demonstration may be low quality/Performers may model their performance on a

poor demonstration

(14) [AO 3] A disadvantage of visual guidance is that performers may miss details of the demonstration/Demonstration may be too much information/Information overload can be caused

(15) [AO 3] An advantage of mechanical guidance is that it removes danger/Increases safety when performing a new skill/Sense of security

(16) [AO 3] An advantage of mechanical guidance is the performer can feel the sensation of the whole movement early in their progress/Kinaesthetic sense of the correct movement/Feeling of correctness is experienced

(17) [AO 3] A disadvantage of mechanical guidance is that it can lead to over-reliance/Performer can become reliant on the support/Cannot do the skill without the aid

(18) [AO 3] A disadvantage of mechanical guidance is that the true sense of the skill is not experienced/Lose a true sense of the skill/Skill is experienced only with the aid

(19) [AO 3] A disadvantage of mechanical guidance is that it can slow down learning of the whole skill/Correct, unaided performance is not experienced/Performer does not experience the skill unaided

**27.** Analyse this video of a Welsh road cyclist in training in Powys and state the following:

- Type of joint at the knee
- Movement occurring at the knee as the rider pulls up on the pedal
- Type of joint at the elbow
- Movement occurring at the elbow throughout.

Marking points **(maximum 4)**

(1) [AO 3] Knee is a hinge joint

(2) [AO 3] Knee is flexing as it pulls up

(3) [AO 3] Elbow is also a hinge joint

(4) [AO 3] Elbow is extended



**28.** Identify the dominant muscle fibre type for the performance and explain why it is more important than the other types.

Marking points **(maximum 4)**

- (1) [AO 1] Slow-twitch fibres
- (2) [AO 2] Because the performance is aerobic in nature
- (3) [AO 2] Because slow-twitch fibres have high fatigue resistance
- (4) [AO 2] Because slow-twitch fibres produce less force

**29.** Identify the type of contraction occurring in the quadriceps as the cyclist pushes down on the pedals and explain how the contraction occurs.

Marking points **(maximum 4)**

- (1) [AO 1] Isotonic concentric/Concentric
- (2) [AO 2] Muscle is shortening
- (3) [AO 2] Muscle is the agonist
- (4) [AO 2] Muscle works in combination with the hamstring, which is relaxing during this phase

**30.** Identify the type of tissue that transmits force from a contracting muscle to a bone.

Marking points **(maximum 1)**

- (1) [AO 1] Tendon

**31.** Describe **two** consequences of a sedentary lifestyle.

### Marking guidance

For type II diabetes, accept "diabetes" without the "type II".

### Marking points (maximum 2)

- (1) [AO 1] Weight gain/Obesity/BMI greater than 30
- (2) [AO 1] Heart disease/Angina/CHD
- (3) [AO 1] Hypertension/Abnormally high blood pressure /High blood pressure
- (4) [AO 1] Type II diabetes/Lifestyle diabetes/Type 2 diabetes
- (5) [AO 1] Poor sleep/Lack of sleep/Insomnia
- (6) [AO 1] Poor self-esteem/Low self-worth/Low confidence
- (7) [AO 1] Lethargy/Ongoing feeling of tiredness/Inability to find energy

**32.** Classify the performance of cycling on the open-closed and the self-externally paced continua and justify your choices.

### Marking guidance

Only accept closed and self-paced. Accept correct justifications even if the classification is wrong.

### Marking points (maximum 4)

- (1) [AO 3] Cycling is a relatively closed skill/Closed
- (2) [AO 3] Because conditions are relatively stable/Few decisions need to be made
- (3) [AO 3] Cycling is a self-paced skill/Self-paced
- (4) [AO 3] Because the cyclist controls the rate of performance

**33.** Evaluate fixed **and** varied practice for a road cyclist.

Marking guidance

Sub max three marks for either fixed or varied.

Marking points **(maximum 5)**

(1) [AO 3] Strength of fixed is that cycling is a mainly closed skill

(2) [AO 3] Strength of fixed is that it can be done on an indoor bike/Practice can be done alone

(3) [AO 3] Weakness of fixed is that it does not replicate race conditions/No overtaking/No real racing

(4) [AO 3] Strength of varied is that it replicates race conditions/Includes opponents/Involves racing

(5) [AO 3] Strength of varied is that some indoor simulators replicate race conditions

(6) [AO 3] Weakness of varied is that it requires others/More complex/Can't be done alone

**34.** Look closely at this image.

Identify the lever operating at the knee.

Marking points **(maximum 1)**

(1) [AO 1] Third-class lever/3rd class lever/3rd class

**35.** Identify the type of joint at the knee.

Marking points **(maximum 1)**

(1) [AO 1] Hinge/Hinge joint

**36.** Describe the role of protein as part of a balanced diet.

Marking points (**maximum 3**)

- (1) [AO 1] Growth/Growth of cells/Growth of body tissue
- (2) [AO 1] Repair/Repair of body tissue
- (3) [AO 1] Form muscle tissue/Form muscle
- (4) [AO 1] Form hormones/Hormone formation
- (5) [AO 1] Form enzymes
- (6) [AO 1] Form haemoglobin
- (7) [AO 1] Broken down into amino acids/Amino acids/Broken down to produce amino acids

**37.** Explain why anaerobic energy release is important to the performer.

Marking points (**maximum 2**)

- (1) [AO 3] Releases high-intensity energy, allowing the dancer to be more explosive/Stretch through a greater range/Leap higher
- (2) [AO 3] Can last for up to three minutes, which is the timescale of many dance performances
- (3) [AO 3] Produces lactic acid, so power moves have to be spaced apart to allow for recovery/Careful choreography to allow recovery
- (4) [AO 3] Lactic acid can be fatiguing/Dancer needs to train this system specifically

**38.** Describe **two** characteristics of skilled performance.

Marking points (**maximum 3**)

- (1) [AO 1] Consistent/Performed with consistency
- (2) [AO 1] Accurate/Performed with accuracy
- (3) [AO 1] Efficiency/Performed efficiently/Performed with maximum efficiency
- (4) [AO 1] Aesthetically pleasing/Aesthetic/Pleasing to the eye
- (5) [AO 1] Performed confidently/Confident
- (6) [AO 1] Effortless/Fluent

**39.** Explain how a performer would calculate their anaerobic training zone.

Marking points (**maximum 2**)

(1) [AO 2] Calculate maximum heart rate/Calculate max HR/Use  $220 - \text{age}$  to calculate maximum heart rate

(2) [AO 2] Then calculate 80-90% of maximum heart rate/Work out 80-90% of maximum heart rate/Calculate aerobic zone by multiplying max HR by 0.8 and 0.9 to find the anaerobic zone

40. Discuss the use of goal setting to improve sporting performance.

Marking guidance

[6-Mark Guidance](#)



Accept other suitable impacts on performer from goal setting. Maximum of two marks for A01 points. Maximum of four marks for A03 points.

Marking points (**maximum 6**)

- (1) [AO 1] Goal setting can be supported by using SMART targets/SMART targets can be used when goal setting
- (2) [AO 1] Focuses attention/Attention/Focus
- (3) [AO 1] Improved effort/More effort/Effort improves
- (4) [AO 1] Develop strategies for success/Develop strategies/Plan for success
- (5) [AO 3] Allows the performer to know if they are progressing/Gives performer a way of measuring progress/Informs the performer of their level of success
- (6) [AO 3] Provides performer with a challenging environment/Physical challenge/Mental challenge
- (7) [AO 3] Allows performer to work on specific weaknesses to improve performance/Work on weakness/Work on specific skills
- (8) [AO 3] Can demotivate performer if targets are not met/Performer can become demotivated if goals are unrealistic
- (9) [AO 3] Performer can become bored if goals are not challenging/Can become bored if goals are repetitive/Can become bored if goals are too long-term
- (10) [AO 3] A mixture of short-, medium- and long-term goals are most effective to keep the performer motivated/Mixture of types of goals is most effective for the performer

**41.** Explain why physical exercise is considered to be good for mental well-being.

Marking points (**maximum 2**)

(1) [AO 2] Exercise leads to improved self-confidence/Performer becoming more confident/Confidence increases

(2) [AO 2] Exercise can relieve stress/Relieve tension

(3) [AO 2] Exercise can increase self-esteem/Self-esteem improves/Self-esteem

(4) [AO 2] Exercise gives performer a feel-good factor/Releases endorphins to give a feel-good factor