



Mark Scheme (Results)

Summer 2025

Pearson Edexcel GCSE
In Physical Education (1PE0)
Paper 01 Fitness and Body Systems

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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

Section A

Question Number	Answer AO1 – 1 mark	Mark
Q01 (a)	The only correct answer is A - Adduction of the arm at the shoulder Incorrect options: <i>B – Dorsi flexion at the ankle is incorrect as this is the role of the tibialis anterior</i> <i>C – Extension of leg at the knee is incorrect as this is the role of the quadriceps</i> <i>D – Rotation of wrist is incorrect as the pectorals are not attached to the wrist and therefore cannot move them.</i>	(1)

Question Number	Answer AO1 - 1 mark	Mark
Q01 (b)	The only correct answer is C - Radius Incorrect options: <i>A – Fibula is located in the lower leg</i> <i>B – Humerus is located in the upper arm</i> <i>D – Sternum is located in the chest</i>	(1)

Question Number	Answer AO1 - 1 mark	Mark
Q01 (c)	The only correct answer is A – Allow movement of bones Incorrect options: <i>B – Joint stability is part of role of ligaments</i> <i>C – Join bone to bone is role of ligaments</i> <i>D – Reduce risk of injury at a joint is part of role of ligaments</i>	(1)

Question Number	Answer AO1 - 1 mark	Mark
Q01 (d)	The only correct answer is A – Clots an open wound Incorrect options: B – <i>Fights infection is a role of white blood cells</i> C – <i>Regulates body temperature is a function of CV system</i> D – <i>Transports oxygen is a role of red blood cells</i>	(1)

Question Number	Answer AO1 – 2 marks; AO2 – 2 marks	Mark									
Q02 (a) Q02 (b)	One mark for each correct response: <table border="1"> <thead> <tr> <th>Sporting example</th><th>(a) Name of the bone</th><th>(b) Classification of bone</th></tr> </thead> <tbody> <tr> <td>Reducing risk of concussion when heading a football</td><td>Cranium (1)</td><td>Flat (1)</td></tr> <tr> <td>Supporting majority of body weight in a handstand</td><td>Carpal(s) (1)</td><td>Short (1)</td></tr> </tbody> </table> Accept other appropriate responses	Sporting example	(a) Name of the bone	(b) Classification of bone	Reducing risk of concussion when heading a football	Cranium (1)	Flat (1)	Supporting majority of body weight in a handstand	Carpal(s) (1)	Short (1)	(4)
Sporting example	(a) Name of the bone	(b) Classification of bone									
Reducing risk of concussion when heading a football	Cranium (1)	Flat (1)									
Supporting majority of body weight in a handstand	Carpal(s) (1)	Short (1)									

Question Number	Answer AO1 - 1 mark; AO3 - 3 marks	Mark												
Q03	One mark for correct response <table border="1"> <tr> <td>(a)</td><td>Frontal (1)</td><td>AO3</td></tr> <tr> <td>(b)</td><td>Deltoid(s) (1)</td><td>AO3</td></tr> <tr> <td>(c)</td><td>Ball and socket (1)</td><td>AO1</td></tr> <tr> <td>(d)</td><td>Abduction (1)</td><td>AO3</td></tr> </table> Accept other appropriate responses	(a)	Frontal (1)	AO3	(b)	Deltoid(s) (1)	AO3	(c)	Ball and socket (1)	AO1	(d)	Abduction (1)	AO3	(4)
(a)	Frontal (1)	AO3												
(b)	Deltoid(s) (1)	AO3												
(c)	Ball and socket (1)	AO1												
(d)	Abduction (1)	AO3												

Question Number	Answer AO1 - 2 marks; AO2 – 2 marks; AO3 – 2 marks	Mark
Q04 (i) Q04 (ii)	One mark for each correct point within one bullet point Looking for the following for position B: Left elbow - Extension has occurred at the elbow (1) due to the contraction of the triceps (1) allowable due to the relaxation of the biceps (1) Left hip - Flexion has occurred at the hip (1) due to the contraction of the hip flexors (1) allowable due to the relaxation of the gluteus maximus (1) Accept other appropriate responses. One mark for reason for linked antagonistic pair (AO1) One mark for linking correct agonist muscle action to cause movement (AO2) One mark for analysis of joint action in image (AO3)	(6)

Question Number	Answer AO1 - 1 mark	Mark
Q05 (a)	One mark for correct answer: • Fatigue resistant/fatigues slowly/high endurance (1) • High mitochondrial content (1) • High aerobic respiratory <u>enzymes</u> (1) • High concentration of myoglobin (1) Accept other appropriate responses	(1)

Question Number	Answer AO2 - 1 mark	Mark
Q05 (b)	One mark for correct example: • Marathon/(long) distance running (1) • Steeple Chase (1) • Cross Country (1) Accept other appropriate responses	(1)

Question Number	Answer AO1 - 1 mark; AO2 – 1 mark; AO3 – 1 mark	Mark
Q05 (c)	One mark for each correct point within one bullet point: • Will cause an increased rate of gas exchange (1) so <u>more</u> oxygen can be delivered to the muscle/<u>more</u> CO₂ removed (1) so the performer can work aerobically for longer/delay fatigue (1) Accept other appropriate responses One mark for knowledge of impact on gas exchange (AO1) One mark for why this would be an advantage to an athlete (AO2) One mark for impact on athlete (AO3)	(3)

Question Number	Answer AO1 - 4 marks	Mark
Q06	One mark for each correct linked descriptive point within the bullet point: Through redistribution of blood flow (1) using vasodilation and vasoconstriction. (1) Blood vessels vasodilate to the working muscles to increase blood flow (1) and blood vessels vasoconstrict (1) to the digestive system (1) Accept other appropriate responses	(4)

Question Number	Answer AO1 - 1 mark; AO2 – 1 mark; AO3 – 1 mark	Mark
Q07 (a)	One mark for each correct point within one bullet point: More CO₂ is breathed out (1) as CO₂ is produced by the body (1) during aerobic respiration (1) Accept other appropriate responses One mark for knowledge of carbon dioxide production (AO1) One mark for the performer working aerobically (AO2) One mark for impact (AO3)	(3)

Question Number	Answer AO1 - 1 mark; AO2 – 1 mark; AO3 – 1 mark	Mark
Q07 (b)	One mark for each correct point within one bullet point: It remains high as there is still a high demand for oxygen (1), to aid recovery (1) for example to help restore energy systems/myoglobin/remove lactate (1) Accept other appropriate responses One mark for knowledge of use of oxygen (AO1) One mark for still high demand for O₂ after exercise (AO2) One mark for impact on athlete (AO3)	(3)

Question Number	Answer	Mark												
	AO2 – 4 marks; AO3 – 2 marks													
Q08 (a) Q08 (b) Q08 (c)	One mark for each correct part of the answer:													
	<table><tr><td>Example of use</td><td>(a) Lever system</td><td>(b) Fulcrum</td><td>(c) Muscle providing the effort</td></tr><tr><td>Take off in high jump</td><td>Second/2 (1)</td><td>Ankle (1)</td><td>Gastrocnemius (1)</td></tr><tr><td>Kicking a football for distance</td><td>Third/3 (1)</td><td>Knee (1)</td><td>Quadriceps (1)</td></tr></table>	Example of use	(a) Lever system	(b) Fulcrum	(c) Muscle providing the effort	Take off in high jump	Second/2 (1)	Ankle (1)	Gastrocnemius (1)	Kicking a football for distance	Third/3 (1)	Knee (1)	Quadriceps (1)	
	Example of use	(a) Lever system	(b) Fulcrum	(c) Muscle providing the effort										
	Take off in high jump	Second/2 (1)	Ankle (1)	Gastrocnemius (1)										
	Kicking a football for distance	Third/3 (1)	Knee (1)	Quadriceps (1)										
Accept other appropriate responses														
AO2 - (a)/(b) AO3 - (c)														
		(6)												

Question Number	Answer AO1 - 1 mark	Mark
Q08 (d)	One mark for correct answer: Greater effort required to move a relatively light load (1) Accept other appropriate responses	(4)

Section B

Question Number	Answer AO1 - 1 mark	Mark
Q09 (a)	The only correct answer is C – the ability to meet the demands of the environment Incorrect options: A – Definition of exercise. B – Definition of health. D – Definition of performance.	(1)

Question Number	Answer AO3 - 1 mark	Mark
Q09 (b)	The only correct answer is B as they have the highest rating for the VJT Incorrect options: A – Vertical jump/power rating is good rather than excellent C – Vertical jump/power rating is good rather than excellent D – Vertical jump/power rating is poor	(1)

Question Number	Answer AO3 - 1 mark	Mark
Q09 (C)	The only correct answer is B as they have the highest rating for power and speed Incorrect options: A – Not as fast or as powerful as 'B' C – Although as fast as B, they are not as powerful D – Although as fast as B, they are not as powerful	(1)

Question Number	Answer AO3 - 1 mark	Mark
Q09 (d)	The only correct answer is A as they have the highest rating for the one-minute press-up Incorrect options: <i>B – Has a lower rating (Average)</i> <i>C – Has a lower rating (Average)</i> <i>D – Has a lower rating (Very good)</i>	(1)

Question Number	Answer AO1 - 4 marks; AO2 – 2 marks	Mark												
Q10 (a) Q10 (b) Q10 (c)	One mark for each correct part of the answer: <table><tr><th>Component of fitness</th><th>(a) How component is being used in Figure 3</th><th>(b) Training method for the component of fitness</th><th>(c) Fitness test for the component of fitness</th></tr><tr><td>Strength</td><td>To hold body weight (1)</td><td>Weight/s (1) Resistance (1)</td><td>(Grip) <u>dynamometer</u> (1)</td></tr><tr><td>Flexibility</td><td>Splits (1) Straddle (1) Leg shape (1)</td><td>Flexibility (1) Circuit (1) Pilates (1)</td><td>Sit and reach (1)</td></tr></table> Accept other appropriate responses AO1 – (b)/(c) AO2 – (a)	Component of fitness	(a) How component is being used in Figure 3	(b) Training method for the component of fitness	(c) Fitness test for the component of fitness	Strength	To hold body weight (1)	Weight/s (1) Resistance (1)	(Grip) <u>dynamometer</u> (1)	Flexibility	Splits (1) Straddle (1) Leg shape (1)	Flexibility (1) Circuit (1) Pilates (1)	Sit and reach (1)	
Component of fitness	(a) How component is being used in Figure 3	(b) Training method for the component of fitness	(c) Fitness test for the component of fitness											
Strength	To hold body weight (1)	Weight/s (1) Resistance (1)	(Grip) <u>dynamometer</u> (1)											
Flexibility	Splits (1) Straddle (1) Leg shape (1)	Flexibility (1) Circuit (1) Pilates (1)	Sit and reach (1)											

(6)

Question Number	Answer AO2 - 2 marks	Mark
Q10 (d)	One mark for each correct answer: • Balance (1) • Coordination (1) Accept other appropriate responses	(2)

Question Number	Answer AO1 – 2 marks; AO2 – 2 marks; AO3 – 2 marks	Mark
Q10 (e)	One mark for each correct point within the bullet point: Two from: • Use of a warm-up (1) correctly stretching (1) to increase <u>muscle</u> temperature/muscle pliability (1) • Checking equipment/facilities before use (1) for example that the floor is dry and clean (1) so the dancer does not slip or trip (1) • Correct application of principles of training (1) for example progressive overload (1) so the intensity is not too great to cause injury (1) Accept other appropriate responses One mark for how to reduce risk of injury (AO1) One mark for linked expansion re method (AO2) One mark for why this reduces risk of injury (AO3)	(6)

Question Number	Answer AO1 – 1 mark; AO2 – 1 mark	Mark
Q11 (ai)	One mark for each correct point within one bullet point • Resting heart rate would decrease (1) due to cardiac hypertrophy (1) Accept other appropriate responses One mark for what happens to heart rate (AO2) One mark for why this happens (AO1)	(2)

Question Number	Answer	Mark
	AO1 – 1 mark; AO2 – 1 mark	
Q11 (aii)	One mark for each correct point within one bullet point: • Resting stroke volume would increase (1) due to increased strength of the heart (1) Accept other appropriate responses One mark for what happens to stroke volume (AO2) One mark for why this happens (AO1)	(2)

Question Number	Answer	Mark
	AO1 – 1 mark; AO2 – 1 mark	
Q11 (aiii)	One mark for each correct point within one bullet point • Will remain the same (1) as HR decreases but SV increases (1) • Will remain the same (1) if HR/SV changes are proportional (1) Accept other appropriate responses One mark for what happens to cardiac output (AO2) One mark for why this happens (AO1)	(2)

Question Number	Answer	Mark
	AO2 – 1 mark	
Q11 (b)	One mark for correct answer: • Cardiovascular fitness (1) Accept other appropriate responses	(1)

Question Number	Answer AO1 – 1mark; AO2 – 1 mark; AO3 – 1mark	Mark
Q11 (c)	One mark for each correct point within one bullet point: • Fartlek training involves a change in terrain (1) which also happens in cross-country as they may run through woods and across fields (1) so the training is specific to their event (1) Accept other appropriate responses One mark for reason (AO1) One mark for applied expanded reason (AO2) One mark for impact on performer (AO3)	(3)

Question Number	Answer AO1 – 1 mark; AO2 – 1 mark; AO3 – 1 mark	Mark
Q11 (d)	One mark for each correct point within one bullet point: • Increased bone density (1) reducing the risk of injury (1) so they can maintain training and therefore performance (1) Accept other appropriate responses One mark for effect (AO1) One mark for expanded reason (AO2) One mark for impact on performer (AO3)	(3)

Section C

Question Number	Answer AO1 – 3 marks; AO2 – 3 marks; AO3 – 3 marks	Mark
Q12	Reward acceptable answers. Responses may include, but are not limited to, the following: Knowledge and understanding of the different PEDs (AO1): • Anabolic steroids allow a performer to increase training intensity (AO1) • Anabolic steroids allow a performer to recover more quickly from training (AO1) • Narcotic analgesics are taken to reduce pain (AO1) • Diuretics result in passing urine sooner/reduces amount of water in the body (AO1) • All have negative side effects on health (AO1) Application of knowledge, linking the PED to performance/training (AO2): • Anabolic steroids allow a performer to increase training intensity (AO1) so they can make better gains in strength and power (AO2). • Anabolic steroids allow a performer to recover more quickly from training (AO1) so they can train more often (AO2). • Narcotic analgesics are taken to reduce pain (AO1) so the sprinter may have an injury that they are trying to ignore so they can still compete (AO2) • Diuretics result in passing urine sooner (AO1) therefore they can lead to dehydration/liver failure (AO2) • Diuretics result in passing urine sooner (AO1) therefore they are used to 'flush' evidence of other drugs out of the body/are used to mask other PEDs (AO2) Evaluation of topic – making reasoned judgements about the positive and negative effects of PEDs (AO3): • Anabolic steroids allow a performer to increase training intensity (AO1) so they can make better gains in strength and power (AO2), perfect for a sprinter as they will be more explosive from the blocks/run faster (AO3). • Narcotic analgesics are taken to reduce pain (AO1) so the sprinter may have an injury that they are trying to ignore so they can still compete (AO2) which will make the injury worse until the sprinter has no option but to stop training/competing (AO3) • Diuretics result in passing urine sooner (AO1) therefore they are used to 'flush' evidence of other drugs out of the body (AO2) reducing the risk of being caught taking drugs that do enhance performance (AO3)	

	Despite the potential health risks, the increased levels of performance and subsequent fame/fortune are too tempting for a minority of performers. Students who only show achievement against AO1 will not be able to gain marks beyond Level 1.	(9)
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Level	Mark	Descriptor
	0	No rewardable material
1	1-3	- Demonstrates isolated elements of knowledge and understanding, with limited technical language used (AO1). - Limited attempt to apply knowledge to question context (AO2). - Generic assertions may be presented (AO3 - evaluation).
2	4-6	- Demonstrates mostly accurate knowledge and understanding, including appropriate use of technical language in places (AO1). - Applied knowledge to question context (AO2). - Attempts at drawing conclusion, with some support from relevant evidence (AO3 – evaluation).
3	7-9	- Demonstrates accurate knowledge and understanding throughout, including appropriate use of technical language (AO1). - Applied detailed knowledge to question context throughout (AO2). - Reaches a valid and well-reasoned conclusion supported by relevant evidence (AO3 – evaluation).