



GCE AS MARKING SCHEME

SUMMER 2025

**AS
PHYSICAL EDUCATION - UNIT 1
2550U10-1**

About this marking scheme

The purpose of this marking scheme is to provide teachers, learners, and other interested parties, with an understanding of the assessment criteria used to assess this specific assessment.

This marking scheme reflects the criteria by which this assessment was marked in a live series and was finalised following detailed discussion at an examiners' conference. A team of qualified examiners were trained specifically in the application of this marking scheme. The aim of the conference was to ensure that the marking scheme was interpreted and applied in the same way by all examiners. It may not be possible, or appropriate, to capture every variation that a candidate may present in their responses within this marking scheme. However, during the training conference, examiners were guided in using their professional judgement to credit alternative valid responses as instructed by the document, and through reviewing exemplar responses.

Without the benefit of participation in the examiners' conference, teachers, learners and other users, may have different views on certain matters of detail or interpretation. Therefore, it is strongly recommended that this marking scheme is used alongside other guidance, such as published exemplar materials or Guidance for Teaching. This marking scheme is final and will not be changed, unless in the event that a clear error is identified, as it reflects the criteria used to assess candidate responses during the live series.

WJEC GCE AS PHYSICAL EDUCATION - UNIT 1

SUMMER 2025 MARK SCHEME

Question	Mark scheme	AO1	AO2	AO3	Total												
1. (a) (i)	Identify, using Figure 1, the type of muscular contraction. Tick (✓) the appropriate box. <table><tr><td>A</td><td>Isotonic concentric</td><td></td></tr><tr><td>B</td><td>Isokinetic</td><td></td></tr><tr><td>C</td><td>Isometric</td><td>✓</td></tr><tr><td>D</td><td>Isotonic eccentric</td><td></td></tr></table>	A	Isotonic concentric		B	Isokinetic		C	Isometric	✓	D	Isotonic eccentric		1			1
A	Isotonic concentric																
B	Isokinetic																
C	Isometric	✓															
D	Isotonic eccentric																
(ii)	Describe, using an example, the antagonistic muscle action. 1 mark for the description 1 mark for the example As one muscle shortens/ contracts to produce movement (agonist), another lengthens /relaxes to allow that movement to take place (antagonist). e.g. biceps brachii are the prime mover/agonist when bending(flexion) the arm, triceps brachii is the antagonist.	2			2												

Question	Mark scheme	AO1	AO2	AO3	Total
(b)	Explain why altitude training is used by endurance athletes to improve performance. 1 mark for a basic explanation. - Improved aerobic capacity/VO2 max/delay fatigue / train for longer 2 marks for a more detailed explanation. - Hypoxic conditions - Increased red blood cells / erythrocytes - Increased haemoglobin - Increased myoglobin - Erythropoietin/EPO - Increases buffering of lactic acid - Enhanced oxygen carrying capacity - Increased capillarisation of blood vessels 3 marks for a developed explanation - A developed response would have the 'coming back down' analogy would be needed. (on return to sea level) Response links altitude training to performance. N.b. don't award full marks for extensive list of annotations		3		3

Question	Mark scheme	AO1	AO2	AO3	Total			
1.(c) (i)	Identify below the type of drink most needed when your primary goal is hydration. <table border="1"><tr><td>B</td><td>Hypotonic</td><td>✓</td></tr></table> Also accept Isotonic	B	Hypotonic	✓	1			1
B	Hypotonic	✓						
(ii)	Explain why dehydration affects performance. 1 mark for a basic explanation (emphasis on one area e.g. performance only) 2 marks for a good explanation of why dehydration affects performance. 3 marks for a detailed explanation of why dehydration affects performance. <u>Performance effects</u> Slower /reduction in intensity Fatigue Loss of concentration Poor of decision making Reach the anaerobic threshold quicker Because of.... • Increase in HR and BR due to viscosity of blood / dropping stroke volume /cardiac output. • Blood pressure decreases due to plasma volume decreasing / blood pressure increases as body constricts blood vesselsO2 being transported as a slower rate through the blood vessels (decrease SV) • Less glucose/glycogen and fatty acids being transported to muscles, therefore less energy in muscles • Increased levels and impaired removal of lactic acid • Reduction in heat loss from the skin. (overheating) • Reduction in the production of ATP • Enzyme transport reduction. • Reduction in electrolytes leading to cramping. • Impaired cognitive function. • Impaired muscle function.		3		3			
		4	6	0	10			

Question	Mark scheme	AO1	AO2	AO3	Total															
2.(a)	Analyse Figure 2 and complete the table below. <table><tr><td>Joint name</td><td>Joint type</td><td>Type of movement from A to B</td><td>Axis of movement</td><td>Predominant muscle fibre used</td></tr><tr><td>Hip</td><td>Ball and Socket</td><td>Rotation</td><td>Vertical / longitudinal</td><td>Fast twitch Type 2 FG</td></tr><tr><td></td><td>AO1</td><td>AO3</td><td>AO3</td><td>AO3</td></tr></table>	Joint name	Joint type	Type of movement from A to B	Axis of movement	Predominant muscle fibre used	Hip	Ball and Socket	Rotation	Vertical / longitudinal	Fast twitch Type 2 FG		AO1	AO3	AO3	AO3	1		3	4
Joint name	Joint type	Type of movement from A to B	Axis of movement	Predominant muscle fibre used																
Hip	Ball and Socket	Rotation	Vertical / longitudinal	Fast twitch Type 2 FG																
	AO1	AO3	AO3	AO3																
(b)	Analyse, using examples, how the theory of observational learning can be used for teaching skills. Indicative content Focus is on skills rather than behaviour <i>Used more for cognitive learners BUT can still be useful for other stages of learning</i> Demonstration – watching demonstration/watching the model /role model – accurate demo important to the learner / good quality demo to create the mental image – poor skills could be learned if not good quality demo – creates a mental picture. Don't overload a cognitive performer Attention – learner selectively attends to demonstration/ picks out relevant/important cues – teacher/ coach or role model should highlight cues to a cognitive performer – verbal guidance used to highlight key aspect to look out for in the demo e.g. focus on the knee lift of a sprinter – must hold the attention of the learner / pay attention to form the mental image – performer tends to imitate what they are interested in Retention – observer needs to remember the demo of the coach/teacher – creating/ retaining a mental picture – repetition of the demonstration needed – mental rehearsal also used – verbal guidance will prevent info overload to help the mental picture e.g. teacher/ coach repeats or gets another athlete to repeat demo of a rugby pass etc. – tells them sweep the ball across the shelf/ coach keeps emphasizing key points Motor reproduction – refers to the attempt by the learner at the modelled skill i.e. copying the performance	2	2	6	10															

Question	Mark scheme	AO1	AO2	AO3	Total
	– learner must be physically capable/be mature enough to perform the skill – demonstration must be matched to the capabilities of the learner e.g. a cognitive performer would not be able to perform a skill with many sub routines straight away e.g. Tennis serve – practice must be used to improve – feedback must be given in practices Motivation – learner must have drive to or want to learn to copy model well/ have the confidence to go and try it – use of praise or positive reinforcement / use of external reinforcement Matching performance – performer imitates demonstration – some skills can be learnt badly – performer must be physically capable				

Band	AO1 2 marks	AO2 2 Marks	AO3 6 marks
3			5-6 marks Excellent analysis of observational learning when used as a tool for teaching practical skills Observational learning model is clear and practical examples used in relation to teaching skills The response is clearly expressed and shows an accurate use of terminology. Writing is very well structured using accurate grammar, punctuation and spelling.
2	2 marks Detailed knowledge of observational learning	2 marks Examples used throughout of the theory of observational learning	2-4 marks A good analysis of observational learning when used as a tool for teaching practical skills. The response is adequately expressed and shows an accurate use of terminology. Writing is generally well structured using accurate grammar, punctuation and spelling.
1	1 mark Basic knowledge of observational learning.	1 mark Some examples of the theory of observational learning.	1 mark A limited analysis of observational learning when used as a tool for teaching practical skills Basic information is provided The response shows basic use of terminology. Writing shows evidence of structure but some errors in grammar, punctuation and spelling.
0	0 marks No knowledge of observational learning.	0 marks No application of observational learning.	0 marks No analysis of observational learning when used as a tool for teaching practical skills

Question	Mark scheme	AO1	AO2	AO3	Total
(c)	Describe, using an example, psychomotor abilities. 2x1 mark 1 mark for description 1 mark for example • Involves processing information, making decisions then putting them into action. • Combines mental processes with physical movements • The example could be either: Psychomotor ability e.g. reaction time, speed, co-ordination Or Sport example demonstrating a psychomotor ability Sprinter processing gun going off and reacting to the stimulus	2			2
		5	2	9	16

Question	Mark scheme	AO1	AO2	AO3	Total
3.(a) (i)	Identify the definition from the term below. ‘The excess oxygen consumption, above that at a resting level, during recovery, to restore the body to its pre-exercise state’. EPOC	1			1
(ii)	Explain, using Figure 3, the inter-changing of the three energy systems during exercise. 1 AO1 knowledge of three energy systems 1-2 marks for a basic explanation of the interchanging energy systems. 3-4 marks for a developed explanation of the interchanging energy systems including how the energy is supplied at the top of band. 5 marks for a detailed explanation of the interchanging energy systems including how the energy is supplied, accurate examples throughout. Indicative Content: • A - ATP-PC- supplies energy very quickly as O₂ is not needed for the process. No lactic is produced /by product in the process. (Alactic) Up to 10s duration and high intensity (95%+) • B - Lactic acid /anaerobic glycolysis. Uses carbohydrates (glucose) stored in the muscles as Glycogen. As no oxygen is required to re-synthesise ATP, energy is produced quickly. 60 -3mins and high intensity (80-95% MHR) No oxygen is used in the process lactic acid is an end product • C - Aerobic Uses carbohydrates (glucose/glycogen) and fats to replenish ATP. O₂ is required for the process, energy production takes a little longer but can continue for a much longer duration O₂ is present so no lactic acid production 3 mins plus and medium intensity. (up to 80% MHR) Must use the information in Figure 3 How they interchange: All work together to provide energy; however, some are more dominant than others depending in the activity. The contribution of each system to resynthesise is determined by intensity and duration.	1	5		6

Question	Mark scheme	AO1	AO2	AO3	Total
	Intensity – the more intense the greater the amount of CP and muscle glycogen used. Duration –If the exercise is high intensity and lasts over 2 minutes then CP and muscle glycogen will become depleted, the intensity of the exercise will therefore drop as the aerobic energy becomes more dominant. Fitness levels will impact the interchanging as a high level of fitness they will take longer to reach the anaerobic threshold. Also, the performer can perform for longer in the anaerobic zone.				
(b)	Explain how an effective warm up could affect a skeletal muscle. 1 mark for a basic explanation of identifying reasons. 2 marks for a good explanation relating to how a warm up affects the muscle 3 marks for a detailed explanation relating to how a warm up affects the muscle. Increases muscle temperature which enhances the power of the muscle /the elasticity/pliability of the muscle fibres/ reduce the risk of injury / improved range of motion Increases blood flow which increases Increases heart rate / breathing rate which increases O2 intake / delays build of lactic acid/ delivers more O2/ haemoglobin to the working muscles. Increases the speed of nerve impulses- quicker neural responses /faster and stronger contractions of the muscles / improved reaction time/ more accurate responses in a game/ sport specific warm helps muscle adapt to the activity ahead Increases enzyme activity so more ATP for energy Blood vessels dilate to increase blood flow to muscles which decrease the impact of fatigue Increases antagonistic muscle action. Accept relevant examples		3		3
		2	8		10

Question	Mark scheme	AO1	AO2	AO3	Total
4.(a)	Assess the role video analysis plays in improving sporting performance. Up to 2 marks for a basic assessment, identifying factors Up to 3 marks for a good assessment of the role of video analysis in improving performance. Up to 4-5 marks for a detailed assessment of the role of video analysis in improving performance. Indicative content Be careful of repeats of the assessment of tactics, techniques, skills and strategies. Advantages • Permanent record of opposition performances. • Can be immediately watched back • Can be watched multiple times • Basic video access everyone has (phones) • Different camera angles can be used to provide different perspectives e.g. birds eye view/ spilt screens • Slow motion, freeze frame, play back can provide precise analysis • Modern computer systems (accept e.g.'s) through GPS allow tracking of player for every second of the game. Identifying distance covered, different intensities of work, heart rate and impact forces etc. • Training can be far more specific in terms of length of time on the field and the intensity (replicating match situations) • Players can use it for self-analysis, which is often a more powerful form of analysis than coach feedback • Tracks progress /past and present performance levels. • Bias removed more objective analysis • Technical analysis • Tactical analysis /team strategies. Disadvantages (do not have to state but may form part of the assessment) • Modern analysis computer programmes can be expensive • Specific training is needed to make full use of the equipment • Very time consuming. A full match of any sport can take up to 20hrs to analyse fully			5	5

Question	Mark scheme	AO1	AO2	AO3	Total
(b) (i)	Outline three ways the government makes use of sport within society. 3 x 1 mark Promote their political ideologies For health promotion Reducing NHS costs For economic purposes including boosting tourism For social integration/ inclusion Lowering crime rates Promotion of feelings of national pride Shop window effect Launch campaigns to increase minority participation / get active campaigns. Keep young people engaged in something positive. Accept relevant responses.	3			3

Question	Mark scheme	AO1	AO2	AO3	Total
(ii)	Explain, using an example, the reason why location maybe a social barrier to participation in sport and physical activity 1 mark for explanation 1 mark for example Limited or lack of: Transport from a rural area Facilities in area Clubs (variety/ amount of etc) Safety in cities Must be related to location and give examples		2		2
		3	2	5	10

Question	Mark scheme	AO1	AO2	AO3	Total												
5.(a) (i)	Identify which of the following recovery stage is the fastest restoration of creatine phosphate (PC). (1) Tick (✓) the appropriate box <table><tr><td>A</td><td>Lactacid</td><td></td></tr><tr><td>B</td><td>DOMS</td><td></td></tr><tr><td>C</td><td>Alacticacid</td><td>✓</td></tr><tr><td>D</td><td>Cool down</td><td></td></tr></table>	A	Lactacid		B	DOMS		C	Alacticacid	✓	D	Cool down		1			1
A	Lactacid																
B	DOMS																
C	Alacticacid	✓															
D	Cool down																
(ii)	Identify two factors that cause fatigue. 2x1 mark • Insufficient O2/ O2 debt • Build up /Presence of Lactic acid /OBLA • Dehydration = reduction of plasma volume/ reduction of blood flow • Sweating = loss of electrolytes (transport sodium and potassium) • Lack of fuel (glycogen)/ glycogen depletion/ PC stores depleted • Increase in body temperature • Over training • Lack of sleep • High intensity exercise • DOMS	2			2												
(b)	Evaluate why a coach uses previous accomplishments and vicarious experiences as a strategy to increase levels of self-efficacy in a sportsperson. 1 mark for knowledge of self-efficacy Up to 2 marks for a basic evaluation Up to 4 marks for a detailed evaluation Self efficacy = specific self confidence High self-efficacy athletes more likely to pursue challenging goals, cope with pain, and persevere with set backs. It is the expectation of being competent and successful in a particular task. If a coach can increase motivation it will increase self efficacy Previous accomplishments- Coach to remind the performer of what they have done before e.g. already achieved a certain height in high jump.	1		4	5												

Question	Mark scheme	AO1	AO2	AO3	Total
	If the performer has high self-efficacy and high confidence due to previous situations they have been in, this needs reinforcing. Dependable information – facts and achievement independently is better. Tasks set by the coach should be appropriate with a high probability of success. Vicarious experiences Modelling /Process of watching or imaging others performing successfully to create an image (mental rehearsal). This shows them how the sport/skill should be performed, this will reduce nerves / anxiety and increase confidence. Choice of demo important, that the example to copy is of a similar ability/ standard /peer. (Not experts) Both processes help to reduce anxiety and increase confidence of the performer				
		4		4	8

Question	Mark scheme	AO1	AO2	AO3	Total
6.(a) (i)	Explain, giving examples, the difference between state and trait anxiety 1 mark for a basic explanation 2 marks for a detailed explanation, example needed For both state and trait anxiety. Examples need to clearly differentiate between the 2 types of anxiety • Trait anxiety – this is the personality core, and consistent worry/behaviour regardless of situation. Can be long term/ enduring • An enduring personality trait giving a tendency to be anxious in all situations Can become anxious in non-threatening situations e.g. friendlies e.g. always nervous for a match • State anxiety – this is an emotional response /changeable and varies depending upon the situation. E.g. taking a penalty It is a temporary/ short term mood state and it comprises of two types: ○ Cognitive state anxiety – amount of worry (nervousness feeling) ○ Somatic state anxiety – is the physiological changes due to perception (butterflies) E.g. nervous before an athletics race but not their netball match People with higher trait anxiety usually have higher state anxiety in competitive situations		4		4
(ii)	Describe two different methods that help control anxiety. 2 marks for naming methods. 3-4 marks for description Biofeedback (1) Monitoring of the body systems e.g. heart rate etc Progressive muscular relaxation (1) Tensing and relaxing different muscle groups Breathing and relaxation techniques (1)/ mediation Combined the control of breathing helping with the symptoms of somatic state anxiety. Physiological measuring equipment. (1)	4			4

Question	Mark scheme	AO1	AO2	AO3	Total
	E.g. finger thermometer, blood pressure monitors etc. Music (1) Helps take mind of situation/ relaxes Imagery / mental rehearsal/ visualisation (1) <i>Justification</i> Picturing yourself performing the skill/ undertaking it successfully. Self talk (1) <i>Justification</i> Focuses on the performer convincing themselves that they are good enough to perform. 'Come on, you can do it' etc. Goal setting (1) <i>Justification</i> Setting SMART targets to follow /targets to follow				
(b)	Analyse the role of English public schools and Universities in the development of sport during the 19th century. Indicative content Dr Thomas Arnold reforms had an impact throughout 19th century e.g. 6th form responsibility or status/ became role models. Boarding allowed time and space to practice throughout all stages Stage 1 (early 1800's) violent / force not skill with Popular recreation characteristics whereas stage 3 was more emphasis on skill rather than force. E.g. mob football Few rules Wagering was part of the culture Stage one had the first 'melting pot of rules'. Boy culture Stage 2 (1828-42) Dr Thomas Arnold encouraged new moral code/ standards and values / frowned upon wagering etc Impact of Muscular Christianity (godliness and manliness) and values encouraged (teamwork, leadership, courage etc.) Impact of the inter house system encouraged, earlier no interhouse because of lack of common rules Social control, improvements in social control	2	2	6	10

Question	Mark scheme	AO1	AO2	AO3	Total
	Less bullying and brutality over the century. House system grew allowing healthy competition a sense of belonging and cohesive attitudes Games were generally compulsory every day. Games organised by the boys and given more trust, therefore were expected to be role models. E.g. Cricket had early acceptance. Mob football became more civilised Games became more regular throughout the century/ i.e. each week Assistant masters appointed /old boys/ specialist coaches employed. Society in general became more civilised. Stage 3 – Cult of Athleticism (physical endeavour and moral integrity) Equipment and facilities became more specialist over the stages. Funding increased. Codification of sport over the stages. Games became more developed e.g. rugby/ football more as we know it now Universities. Oxbridge melting pot. They were the first to attempt to codify sports Influence on modern day.... Clarendon report was commissioned and focused on morals / sportsmanship through team games. Games became compulsory in many schools e.g. Harrow Universities credited with establishing first forms of the NGB's. Ex public school boys became factory owners, clergy and developed teams e.g.(factory teams, YMCA, boys brigade) Ex public school boys joined the army and helped spread sports around the British empire. (as well as graduates travelling with increased transport) Politicians introduced Acts of Parliament for public provision of facilities. e.g. Football was taken into society due to its attractive qualities for spectatorism Growth of womens sport was much slower due to the traditional role of women, their anxiety over the clothing, it was unladylike to be competitive, also seen as a complication to child bearing to exercise				
		6	6	6	18

Band	AO1 2 marks	AO2 2 marks	AO3 6 marks
3			5-6 marks Excellent analysis of English public schools and Universities adapted from the beginning to the end of the 19th century in the development of sport There are clear links from the beginning to the end of the century. The response is clearly expressed and shows an accurate use of terminology. Writing is very well structured using accurate grammar, punctuation and spelling.
2	2 marks Good knowledge and understanding of the role.	2 marks Good explanation of the development throughout the century. Appropriate examples.	2-4 marks A good analysis of how the English public schools and Universities adapted from the beginning to the end of the 19th century in the development of sport The response is adequately expressed and shows an accurate use of terminology. Writing is generally well structured using accurate grammar, punctuation and spelling.
1	1 mark Basic knowledge and understanding of the role.	1 mark Basic explanation of the development throughout the century. Some examples are provided throughout.	1 mark A limited analysis of how English public schools or Universities adapted from the beginning to the end of the 19th century. Basic information is provided. The response shows basic use of terminology. Writing shows evidence of structure but some errors in grammar, punctuation and spelling.
0	0 marks No knowledge of the stages of development.	0 marks No application of the stages of development.	0 marks No analysis of English public schools and Universities adapting from the beginning to the end of the 19th century.

Unit 1: Assessment objectives mark allocations

	Q1	Q2	Q3	Q4	Q5	Q6	Total
AO1	4	5	2	3	4	6	24/24
AO2	6	2	8	2	0	6	24/24
AO3	0	9	0	5	4	6	24/24
Total	10	16	10	10	8	18	72