



GCE MARKING SCHEME

SUMMER 2025

**A LEVEL
PHYSICAL EDUCATION – COMPONENT 1
A550U10-1**

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.

GCE PHYSICAL EDUCATION

COMPONENT 1

SUMMER MARK SCHEME 2025

Question	Mark Scheme	AO1	AO2	AO3	Total
1. (a)	Calculate, using figure 1. One mark for correct figure Cardiac output: $100 \times 50 = 5000 \text{ ml/min}$ (5 l/min) Must include units for max marks	2			2
(b)	Justify the use of field based testing for sports clubs 1-2 marks – basic justification 3-4 marks – detailed justification linked to sports clubs Indicative content <u>Field</u> • Cost of testing is lower/cost effective • Ability to test multiple athletes/ages/teams at the same time • Facilities/equipment easier to come by • Easier to re-test and monitor progress • Talent ID • Often real environment • Can be done by club coaches/no need for a sports scientist • Set targets/Goals • Compare players/results <i>Accept any other relevant response</i>		4		4
(c)	Explain why Type I muscle fibres are predominantly used in endurance events 1-2 marks basic explanation. 3-4 marks detailed explanation. Linked to endurance events. • More resistant to fatigue • Slower speed of contraction • Less forceful contractions • Large amount of Mitochondria for aerobic respiration • Therefore, can keep working during long periods of work such as marathons • Can keep working at a steady pace, but don't produce speed which isn't need for large parts of endurance activities • Don't produce strong contractions which aren't needed for large parts of endurance activities • Excellent blood/oxygen supply allows the to use aerobic energy system and reduce/remove lactic acid build up <i>Do not accept red in colour unless mentioned alongside blood supply.</i>		4		4

Question	Mark Scheme	AO1	AO2	AO3	Total
(d)	Describe the role of diet for a sports performer. 1-2 marks – Limited description of some elements of general diet and limited/no reference to a sport performer 3-4 marks – Basic description of the role of diet for a sports performer. 5-6 marks – Good description of the role of diet for a sports performer, several elements of diet are covered 7-8 marks – Detailed description of the role of diet for a sports performer, excellent knowledge/detail of diet is shown (Reference to relative proportions/timings) Indicative content <i>Must include role it plays in sports performance not just what general diet is/consists of, to access higher bands</i> • Diet split into Proteins, Carbohydrates and Fats • Calories/energy balance for health, weight loss and gain • Protein used for growth and repair of muscles • Fat (low % in diet) – however can be useful for providing energy • Carbohydrates – linked to providing energy/principle energy provider for sports performance • Carbo loading before activity/more carbs for some people • Glycaemic index – rates how quickly the food containing carbohydrate is broken down into glucose to be used • High GI foods – fast releasing – quicker energy (e.g. sugar/simple carbs – sweets/sugary drinks or similar) • Low GI foods – slower releasing – sustained energy release (complex carbs – rice/pasta or similar) • Supplementation • Increased performance with having supply of glucose/glycogen for energy • Protein importance post exercise, recovery, improves muscle size over time • Weight gain too much fat • Not enough energy if too little CHO and too much protein (activity specific variations accepted here) • Not enough Protein – performance may plateau • Use of pre competition meals, intra workout/activity drinks (Hypotonic/Isotonic/hypertonic)	8			8
		10	8	0	18

Question	Mark Scheme	AO1	AO2	AO3	Total								
2. (a)	Identify using figure 2, the agonist, antagonist, joint type and joint action from A to B at the elbow (C). 4x1 mark <table><tr><td>Agonist</td><td>Antagonist</td><td>Joint type</td><td>Joint action</td></tr><tr><td>Tricep (Brachii)</td><td>Bicep (brachii)</td><td>Hinge (synovial)</td><td>Extension</td></tr></table>	Agonist	Antagonist	Joint type	Joint action	Tricep (Brachii)	Bicep (brachii)	Hinge (synovial)	Extension	4			4
Agonist	Antagonist	Joint type	Joint action										
Tricep (Brachii)	Bicep (brachii)	Hinge (synovial)	Extension										
(b)	Explain, using examples, how the Magnus effect can influence the flight path of a ball 1-2 marks - basic explanation of magus effect on flight path (no examples) 3-4 marks - good explanation of magus effect on flight path (limited examples) 5-6 marks - excellent explanation of magus effect on flight path (relevant examples throughout) Indicative Content • A ball can be hit with top spin which causes dip • A ball can be hit with back spin which causes lift • A ball can be hit with side spin which would create swerve/curl • This is due to the Magnus effect (spinning ball creating an air differential) • Laminar flow – speed of flow • When a ball spins, the air molecules surrounding the ball spin with it. This creates what is called a boundary layer. • When this boundary layer of air molecules collides with the oncoming air there is the creation of a pressure differential • The pressure differential on opposite sides of the ball causes a Magnus force • The resulting movement of the ball is directly caused from a high pressure region to a low pressure region • high/low pressure areas must match the spin applied and direction of the movement of the ball e.g. top spin = high pressure above/on top of the ball causing dip/downforce • Short/lengthen flight • Change direction of flight Correct pressure and direction of travel must be covered for max marks	2	4		6								

Question	Mark Scheme	AO1	AO2	AO3	Total
(c)	Describe, using a sporting example, bilateral transfer of learning. 1 x 1 Where the learning of one skill is transferred from one limb to the other 1 x 2 marks for example e.g. a footballer can shoot with their right foot because they have already learned to do this skill with their left foot. Accept any other relevant example	2			2
(d)	Explain, using examples, Whiting's information processing model. 1-2 Marks – Limited explanation of the model. No examples 3-4 Marks – Basic explanation of the model (some elements). Limited examples 5-6 Marks - Marks – Good explanation of the model (majority of elements) and limited examples are used 7-8 Marks - Excellent explanation of the model linking it correctly examples throughout Indicative Content • Display is what we could see/hear/feel • Information is received from our senses. Selective attention filters the information. • Perceptual mechanism is the part of the brain which makes sense of the surroundings and gives the information meaning. • Translator mechanism is the part of the brain that selects relevant information. Comparing previous stores between the short and long term memory to determine the appropriate action. Decision Making • Effectors mechanism is the part of the brain that sets in motion the appropriate neuromuscular sequences to activate the skill. Messages are sent from the brain to the appropriate limbs for movement. (movement occurs) • Once the action is complete it is stored in the long term memory for future reference. Feedback into the memory via knowledge of results / knowledge of performance – intrinsic/extrinsic	2	6		8
		10	10		20

Question	Mark Scheme	AO1	AO2	AO3	Total
3 (a)	Evaluate how the use of different leadership styles could influence performance. Indicative Content AO1 Styles - autocratic, democratic and Laissez-faire – (task and relationship centred) AO2 • Autocratic – task orientated/makes all decisions/authoritarian/does not share responsibility • Democratic – personal orientated/shares decisions/responsibility/develops relationships • Laissez-faire – group makes decisions/does not take responsibility • Relationship orientated – maintain communication/social interaction/develop trust/respect • Task orientated – focused on meeting goals, objectives, improving performance, productivity/plan, prioritise and assign tasks/ensure players stay on task AO3 • Pre-game planning/small group/basic task – democratic/relationship orientated • Large group/time constrained/quick decision needed/dangerous –autocratic/task orientated • Beginners/less able performers – autocratic/task orientated • Elite performers – democratic/relationship orientated • Personal preference of leader (although should flexible and be able to adapt) • Fielders contingency – favourable-ness of group/situation • Can reference Chelladurai's Multidimensional Model or link to correct style being successful in task and group satisfaction • Mentions errors in style leading to lack of success or satisfaction or ultimately lack of success and satisfaction	2	2	4	8

Band	AO1 2 Marks	AO2 2 Marks	AO3 4 Marks
3			4 marks Excellent evaluation of leadership styles and how/when they can influence performance. Answer explores how it can influence both positively and negatively
2	2 marks Good knowledge of leadership styles	2 marks Good explanation of the styles of leadership	2-3 marks Good evaluation of leadership styles and how/when they can influence performance although lacks detail and depth. Generally, one sided (influences positively or negatively)
1	1 mark Limited knowledge of leadership styles	1 marks Limited explanation of the styles of leadership	1 mark Limited evaluation of how leadership styles can influence performance
0	0 marks Response not worthy of credit.		

Question	Mark Scheme	AO1	AO2	AO3	Total
(b) (i)	Explain the problems associated with group processes. 1-2 marks - basic explanation of problems relating to processes within groups – terminology from topic is limited 3-4 marks - good explanation of problems relating to processes within groups good use of terminology from topic 5-6 marks - excellent explanation of problems relating to processes within groups excellent use of terminology from topic is used throughout Indicative content • Tactical misunderstandings/poor teamwork/lack of unity. Cohesion • Some sports rely on players interacting with each other extensively • Steiners model – productivity/faults • Ringlemann effect – more players leads to difficulties in coordination / communication • Incorrect leadership style • Social loafing - More players means that some players can 'hide' • Players develop the sense that others can do the work for them • Over-reliance on star players/perceived or lack of ability from others • Not all players giving 100% • Loss of confidence as a team /reduction in commitment. • Dysfunctional behaviour/by individuals • Lack of harmony between members/coach and members/lack of antecedents (Carron) • Players feel less valued by the coach if they feel others are treated better/differently • Storming phase		6		6

Question	Mark Scheme	AO1	AO2	AO3	Total
(b) (ii)	Outline three strategies a coach could use to reduce faulty processes within a group Indicative content 3 x 1 mark for knowledge of strategies • Team building – develop 6 I's • Correct group cohesion for the task/situation • Correct communication/instruction/style of leadership • Intrinsic or extrinsic motivation • Rewards for group/individuals • Praise/reinforcement • Individual/team goals/targets • Competitiveness for places • Punishments • Set targets • Set roles add responsibility • Improve Motivation • Improve self-confidence/self-efficacy Accept any other relevant strategy	3			3
(c)	Analyse the use of different methods of guidance in the cognitive stage of learning. <u>This is a banded question</u> Indicative Content <u>Visual</u> - through the use of demonstrations/video <u>Verbal</u> - through explanation using clear, concise language <u>Manual</u> - development of kinaesthetic awareness through physically moving the body through the movement / into the correct position. <u>Mechanical</u> - use of mechanical support to aid movement during learning e.g. flotation devices in swimming, stabilizers for learning to ride a bike <u>Cognitive learner</u> – beginner, not aware or may lack comprehension or coordination. Cognitive: Visual guidance: modelling/demonstration esp. useful in early stages as it allows learner to understand the whole skill and build a mental image or picture; role model usage or peer to peer, must be correct demonstration Verbal guidance: clear teaching points can draw attention to particular aspects of performance, better when used in conjunction with visual guidance. Must be phrased in language that can be understood by the learner.	2	2	4	8

Question	Mark Scheme		AO1	AO2	AO3	Total
	Manual/mechanical guidance: good for developing confidence; increased safety; can help to develop some kinaesthetic awareness and avoid bad habits being formed through incorrect practice Visual guidance: too much information if whole skill is performed; learners must give demonstrations full attention - avoid distractions. Verbal guidance: some skills are too difficult; complex to describe; relies on learners have good level of language skill and comprehension, learners find it hard to see and hear at the same time, not effective on its own. Manual/mechanical guidance: reliance or over dependent on support; may be limited in developing kinaesthetic awareness of full skill; cannot be used with some skills; limited when coaching large groups.					
Band	AO1 2 Marks	AO2 2 Marks	AO3 4 Marks			
3			4 marks Excellent analysis of the different methods of guidance to the cognitive stage of learning. Answer explores both the positive and negative impacts of the different methods on cognitive stage of learning. Topic specific terminology used throughout			
2	2 marks Good knowledge of methods of guidance	2 marks Good application/use of examples supporting methods of guidance that could be used for someone in the cognitive stage of learning	2-3 marks Good analysis of the different methods of guidance to the cognitive stage of learning. Answer is one sided, either positive or negative impacts have been explored. Some terminology from the topic is used			
1	1 mark Limited knowledge of methods of guidance	1 mark Limited application/use of examples of guidance that could be used for someone in the cognitive stage of learning	1 mark Limited analysis of the different methods of guidance to the cognitive stage of learning,			
0	0 marks Response not worthy of credit.	0 marks Response not worthy of credit.	0 marks Response not worthy of credit.			
			7	10	8	25

Question	Mark Scheme	AO1	AO2	AO3	Total
4 (a)	Contrast the characteristics of a need to achieve (NACH) and a need to avoid failure (NAF) sports performer Award 1-2 marks – basic contrasts made between (NACH/NAF) Award 3-4 marks – good contrasts made supported by some evidence between (NACH/NAF) Award 5-6 marks – detailed/extensive contrasts made supported with evidence throughout between (NACH/NAF) Need to achieve (NACH) - likes a challenge - High stakes/pressure situations - likes feedback - is not afraid of failure - has high task persistence - will choose difficult or demanding tasks which are more risky Need to avoid failure (NAF) - this personality type avoids challenges - Low stakes/pressure situations - does not take risks - often gives up - does not want feedback - will choose tasks which are less risky and more easily achieved <i>Listed answer to be considered basic.</i>		6		6
(b) (i)	Define hostile aggression 1 mark for: Hostile aggression refers to actions that are intended solely to cause harm and are outside the rules of the sporting competition <i>Or Similar</i>	1			1
(ii)	Outline two strategies a coach could use to reduce aggression 2 x 1 marks – Answers need to be outlined – no marks for identify Work with the athlete to lower/control arousal levels. Removal from pitch/field of play – substitution Reinforcement/praise/reward of good/fair behaviour Club fines/punish incorrect behaviour Education, social learning theory/role models Role related behaviour – Leadership roles Club/team code of conduct created and signed Or other relevant answer	2			2

Question	Mark Scheme	AO1	AO2	AO3	Total									
(c)	Assess, using sporting examples, the use of attribution theory in sport. <u>This is a banded answer</u> Indicative content: <table><tr><td></td><td>Internal</td><td>External</td></tr><tr><td>Stable</td><td>Ability</td><td>Task Difficulty</td></tr><tr><td>Unstable</td><td>Effort</td><td>Luck</td></tr></table> - perceived cause for events or behaviour/reasons for behaviour, for winning and losing. - Ability, effort, luck, task - Stable elements that are fixed/Unstable elements that can change - Internal: under performer's control/External: outside of performers control. - Important because it can affect –future effort, motivation and behaviour. - Coaches can use attribution theory to develop an understanding of performer's behaviour and an understanding of motivation. - Identification of reasons for performance helping performer to improve, develop, maintain performance, develop confidence. - Attributing defeat to external attributions sustains confidence and establishes a winning expectation, taking away the responsibility of the loss from players. - This would maintain self-esteem, sustain motivation, pride. - Success should be attributed to stable /internal reasons - Motivation- understanding attributions help coach/performer to realise what needs improving, how hard they need to work even when winning. - SELF SERVING BIAS –where performers who lose tend to attribute their failure to external causes and performers who win attribute success to internal factors. This limits sense of shame due to failure and highlights personal achievement and success. - External causes can't fix the internal problems that maybe happening (physical/technical/tactical mistakes) - LEARNED HELPLESSNESS – extreme lack of motivation, feeling of hopelessness. Caused by reinforced failure and internal /stable factors.		Internal	External	Stable	Ability	Task Difficulty	Unstable	Effort	Luck	1	3	4	8
	Internal	External												
Stable	Ability	Task Difficulty												
Unstable	Effort	Luck												

Question	Mark Scheme		AO1	AO2	AO3	Total
	ATTRIBUTIONAL RETRAINING – changing attributions to help motivation. Focus on external factors Include relevant examples.					
Band	AO1 1 Marks	AO2 3 Marks	AO3 4 Marks			
3		3 marks Excellent explanation or application of the Attribution theory. Excellent examples to support answer	4 marks Excellent assessment of Attribution theory. Complex judgements are made and correct applications of the ideas is evident. Analysis focuses on the theory being both useful when used correctly and not useful if used incorrectly.			
2		2 marks Good explanation or application of the Attribution theory. Examples used	2-3 marks Good assessment of Attribution theory. Reasoned judgements are made and correct applications of the ideas is evident. Analysis is one sided and focuses on the theory either being useful/used correctly or not useful/used incorrectly.			
1	1 mark Knowledge of attribution theory	1 mark Limited explanation or application of the Attribution theory. Limited/no examples used	1 marks Limited assessment of Attribution theory. Some reasoned judgements are evident. There are links between theory and practice made			
0	0 marks Response not worthy of credit.	0 marks Response not worthy of credit.	0 marks Response not worthy of credit.			
			4	9	4	17

Question	Mark Scheme	AO1	AO2	AO3	Total
5 (a)	Identify the three aspects of the 'golden triangle'. (Tick one box only) 1 mark for: Media, sponsorship and sport.	1			1
(b)	Explain how the World Anti-Doping Agency (WADA) attempt to prevent the use of illegal performance enhancing substances. Max 1 mark for list 1-2 marks - basic explanation of method/s (no application) 3-4 marks – detailed explanation of method/s - Application of methods. Indicative Content • Creates the list of banned/prohibited substances • Sets standards for national doping agencies to follow – the doping code and ensures code compliance • Education for athletes/guidance on how to avoid doping • Issues Therapeutic Use Exemptions (TUEs) – ensuring medical needs are met • Testing and Investigations at competitions and out of competition testing – Biological passports • Standards of laboratories who control and test samples • Results Management/issuing bans <i>Accept any other response that is relevant to indicative content.</i>		4		4
(c)	Explain how developments in technology have made sport safer for performers. 1-2 marks – basic explanation, limited information to support the statement 3-4 marks – detailed explanation, good information to support the statement Indicative Content HR/health monitoring • Video analysis – reduce the risk of injury • Video refs - reduce the chance of on field violence going unpunished • Research into better and creation equipment/adapted to be less dangerous – halo in F1, footballs less heavy when wet etc...various sporting examples available • Medical tests and research and advances – e.g. concussion protocols/warning signs and symptoms • Portable defibrillators at sports stadiums/parks/pitches • Surfaces more stable/forgiving – less dangerous in adverse conditions • Facilities better equipped for training/ performance/emergencies • Equipment quality assured/ tested		4		4

Question	Mark Scheme	AO1	AO2	AO3	Total
(d)	Assess, with reference to relevant theories, how an audience can affect sporting performance <u>This is a banded question</u> Indicative Content Positive and negative effects of the presence of an audience on performance. Theories; <u>Drive theory</u> - Presence of audience causes increased arousal; Increased drive/arousal means performer tries harder/drive; Increased likelihood of learnt dominant response; Effects depend on stage of learning; Early/cognitive stage. negative effects/social inhibition; Performer not fully developed appropriate response to demands; Later/associative/autonomous stages performance enhanced by presence of audience; Enhancement effect more likely if simple task/gross skill; Impairment effect more likely if complex task/fine skill Can lead to either social facilitation or social inhibition. – credit for over arousal theories for inhibition Increase in arousal will cause the dominant response Novice – not well-learned – poorer performance Elite – well-learned – improved performance <u>Evaluation apprehension theory</u> – the feeling of being judged by the audience can lead to decreased performance (anxiety levels) or seen as a great opportunity to be judged/assessed and seen as an excellent performer <u>Distraction conflict theory</u> – audience causes a distraction/attentional split which can increase arousal as impact performance – is the arousal enough to compensate for the distraction from the skill – expert/autonomous spare attentional capacity – novice doesn't have this. <u>Self-presentation theory</u> – intention to influence or change how other people see you. Audience seen as an opportunity to 'show off' or present yourself as a skilled/capable performer linked with arousal/confidence, prove someone wrong, errors can then lead to negative aspects/lower confidence or increase fear of failure Home field advantage Home support tends to improve performance/social facilitation effect/boost self-efficacy/lower levels of anxiety. Proximity effect/closeness of crowd has negative effect on visiting athletes/teams. Larger crowd/hostile crowd has a negative effect on visiting athletes/teams.	4		12	16

Question	Mark Scheme	AO1	AO2	AO3	Total
	Inhibition- Increased pressure from the home crowd. More important the game the greater the pressure/ choke effect/championship choke. Performers become more self-conscious at home causing over-arousal. Players place more pressure on themselves at home matches due to expectations. Social inhibition for the home team. Other content: Presence of an audience increased arousal/anxiety can link to over arousal theories Examples; Positive – not giving up when fatigued, increased motivation, distraction for other teams, desire to impress (raise your game), increased arousal Examples; Negative – over arousal, distraction of crowd, lack of support, pressure from the crowd to continue when injured, being selfish chasing individual praise				
Band	AO1 4 Marks	AO3 12 Marks			
		10-12 marks Excellent assessment of theories and how an audience can create social facilitation or inhibition affecting sports performance. Assessment is supported by application/examples throughout. Sound conclusions are drawn based on the theories. Social facilitation and inhibition are equally referenced in the answer. Several theories are referenced. Terminology from the topic is used throughout			
3		7-9 marks Good assessment of theories and how an audience can create social facilitation and inhibition affecting sports performance. Assessment is supported by application/examples. Answer may be typically one sided towards facilitation or inhibition Some theories are referenced. Terminology from the topic is used			
2	3-4 marks Good knowledge of relevant theories of social facilitation/inhibition	4-6 marks Basic assessment of theories and how an audience can create social facilitation or inhibition affecting sports performance Assessment is supported by some application/examples. Answer is one sided towards facilitation or inhibition. Relevant theory is referenced.			
1	1-2 mark Limited knowledge of relevant theories of social facilitation/inhibition	1-3marks Limited assessment of theories and limited assessment of how an audience can create social facilitation or inhibition affecting sports performance. No reference to theories			
0	0 marks Response not worthy of credit.	0 marks Response not worthy of credit.			
		5	8	12	25

	Q1	Q2	Q3	Q4	Q5	TOTAL
AO1	10	10	7	4	5	36
AO2	8	10	10	9	8	45
AO3	0	0	8	4	12	24
TOTAL	18	20	25	17	25	105