



GCE MARKING SCHEME

SUMMER 2024

**A LEVEL
PHYSICAL EDUCATION – COMPONENT 2
A550U20-1**

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 2

SUMMER 2024 MARK SCHEME

Question	Mark Scheme	AO1	AO2	AO3	Total						
1. (a)	Identify, using Figure 1: i. the type of joint at the shoulder. ii. the type of movement at the shoulder when moving into the crucifix position. iii. the main agonist muscle at the shoulders when moving into the crucifix position. Award 1 mark for each of the following (3x1): <table border="1"><thead><tr><th>Type of joint</th><th>Main agonist</th><th>Joint action</th></tr></thead><tbody><tr><td>Ball & Socket (1)</td><td>Deltoid (1)</td><td>Abduction (1)</td></tr></tbody></table> Table 1	Type of joint	Main agonist	Joint action	Ball & Socket (1)	Deltoid (1)	Abduction (1)	3			3
Type of joint	Main agonist	Joint action									
Ball & Socket (1)	Deltoid (1)	Abduction (1)									
(b)	The majority of sports such as gymnastics require key characteristics to achieve successful performance. Outline three characteristics associated with skilful performance. <i>Award three marks from any of the following points:</i> • Aesthetic/Aesthetically pleasing (1) • Efficient/quick/minimal time (1) • Fluent/smooth/flowing (1) • Minimum outlay of energy/effortless (1) • Consistent/max certainty/few mistakes (1) • Goal directed/has an end result/ objective (1) • Learned/minimal concentration (1) • linked to a technical model/ recognisable/ precise/ accurate/ correct (1) • Coordinated/controlled (1) • Can perform well when arousal levels are high. <i>Accept any other appropriate characteristics of skilful performance.</i>	3			3						

Question	Mark Scheme	AO1	AO2	AO3	Total
(c)	Gymnasts are required to memorise very complex routines. Identify two strategies that could be used to improve the retention and retrieval of information. <i>Award two marks from any of the following points:</i> • Chunking (1) • Chaining (1) • Selective attention (1) • Rehearsal/Practice/repetition (1) • Association/making links (1) • Avoid overload of information - short-term memory has a limited capacity (1) • Keeping it simple - e.g., learning one swim stroke at a time (1) • Organised (1) • Imagery (1) • Visualisation (1) • Uniqueness (1) • Meaningful (1) • Enjoyment/variety (1) • Use positive reinforcement/reward (1) • Increase Importance (1) • Use of role models (1) <i>Accept any other appropriate strategies that could be used to improve retention and retrieval of information.</i>	2			2
(d)	Explain, using sporting examples, how a coach could optimise positive transfer on the learning of a new skill Award 1 mark for a list or basic explanation of how a coach could optimise positive transfer. Award 2-3 marks for a detailed explanation of how a coach could optimise the effects of positive transfer on the learning of a new skill. Award 4-5 marks for a developed explanation (using practical examples throughout) how a coach could optimise the effects of positive transfer on the learning of a new skill. • Positive transfer occurs when the learning of one skill enhances the learning and performance of another skill. • Learning situations need to allow for positive transfer - variability of practice e.g., encouraging players to use two-touches in football would better recreate the conditions experienced in real/game/match situations and help improve passing skill. • Making the performer aware of the transferable elements of the learned skill - Coaches can aid this positive transfer by making sure the individual understands the similarities between the two skills and		5		5

Question	Mark Scheme	AO1	AO2	AO3	Total
	by making sure that the basics of the first skill are well learned so that they transfer more easily into the second skill <i>e.g. the overarm throw will transfer positively to many skills such as bowling in cricket, a smash shot in badminton, shooting in netball etc.</i> • Give clear and concise demonstrations - if the learner can see clearly what is required of them and are not overloaded with information <i>e.g., by giving a clear concise demonstration of a smash shot in badminton the learner will be able to see how the overarm throw would transfer positively over.</i> • Environmental conditions need to be similar to the real situation - if the coach can make practice more realistic by using game related situations and real opposition. <i>e.g., passing skills in team sports should be practised in a changing environment by using variable practice.</i> • information processing elements need to be similar <i>e.g., getting free in netball has the same perceptual elements/requirements as making a cut in basketball.</i> • Previous skill/skills must have been learned well/mastered/grooved - <i>e.g., if the overarm throw has not been learned well positive transfer will not occur in skills such as bowling in cricket, shooting in netball etc. Similarly, if part learning is being used by the coach, they must ensure their performer has learned one part before moving onto the next e.g., master the hop or bound phase before moving onto the step phase of the triple jump.</i> • Offer diverse experiences - these experiences enhance the probability of positive transfer occurring <i>e.g., if a young performer has learned a wide variety of fundamental movement skills, they will have a much bigger pool of experience from which to draw upon when learning new skills or more sports specific skills.</i> • Use Reinforcement - the use of reinforcement and utilising it in the correct way will both strengthen and weaken the S-R bond therefore increasing the likeliness of positive transfer occurring. <i>e.g., if a coach praises a performer for doing a smash shot when receiving a high serve in badminton (strengthen S-R bond) and similarly by ignoring the wrong response this should serve to weaken the S-R bond.</i> • Avoid skill conflict/confusion - a coach can increase the likelihood of positive transfer occurring if they ensure that they avoid teaching/coaching conflicting skills close to one another <i>e.g., badminton and tennis strokes.</i> <i>Accept any other appropriate explanations of how a coach could optimise the effects of positive transfer on the learning of a new skill.</i>				

Question	Mark Scheme	AO1	AO2	AO3	Total								
(e)	Many people have attributed the bronze medal won by Team GB women's gymnasts at Tokyo 2020 to the shock withdrawal of USA's Simone Biles and a late collapse from the Italian team. Analyse how knowledge of the attribution theory could benefit a coach when developing sporting performance. Banded answer Indicative content Locus <table><tr><td></td><td>Internal</td><td>External</td></tr><tr><td rowspan="2">Stability</td><td>Stable Ability</td><td>Task difficulty</td></tr><tr><td>Unstable Motivation</td><td>Luck</td></tr></table> • Attribution theory - perceived cause for events or behaviour. • Reasons for behaviour, for winning and losing. • 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. • Weiner's model of attribution. • Locus of control/causality and stability dimensions explained. • Stable elements that are permanent. • Unstable temporary elements that can changed. • Internal –under performers control. • External –outside of performers control. • Internal /unstable – concentration, commitment, confidence, attitude, preparation. • Relevant example of ability, effort, luck task. • 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. • Link with motivation- understanding attributions help coach/performer to realise what needs improving, how hard they need to work even when winning. • Attribution's affect EXPECTATIONS. • (How we will perform in future) EMOTION (pride, enjoyment satisfaction/dissatisfaction, disappointment, frustration).		Internal	External	Stability	Stable Ability	Task difficulty	Unstable Motivation	Luck	2		6	8
	Internal	External											
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Question	Mark Scheme	AO1	AO2	AO3	Total														
	- 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 the sense of shame due to failure and highlights personal achievement in success. - LEARNED HELPLESSNESS – extreme lack of motivation, feeling of hopelessness. Caused by reinforced failure and internal / stable factors. - Global learned helplessness (all sport) - Specific learned helplessness (one sport) - Relevant example. - ATTRIBUTIONAL RETRAINING – changing attributions to help motivation. Focus on external factors. - Actor - Observer Effect - the person carrying out the action (the actor) will attribute behaviours to situational reasons (I smashed my racket on the ground as I was frustrated with the umpires poor decisions) and the observer (the person watching the actor) will attribute their behaviour to dispositional reasons (they smashed their racket on the floor as they don't care) and is most likely to occur when the behaviours being performed are being perceived as negative. <i>Accept any other appropriate discussion of how a knowledge of the attribution theory could benefit a coach when developing an athlete's sporting performance.</i>																		
	<table><tr><th>Band</th><th>AO1 2 Marks</th><th>AO3 6 Marks</th></tr><tr><td>3</td><td></td><td>5-6 marks Excellent analysis of how a coach could use attribution to develop an athlete's performance. Relevant examples are provided throughout showing each category. The response is clearly expressed and shows an accurate use of terminology. Writing is very well structured.</td></tr><tr><td>2</td><td>2 marks Good knowledge of Weiner's attribution model and how a coach could use it.</td><td>3-4 marks Good analysis of how a coach could use attribution to develop an athlete's performance. Some relevant examples are provided. The response is adequately expressed and shows an accurate use of terminology. Writing is generally well structured.</td></tr><tr><td>1</td><td>1 mark Limited knowledge of Weiner's attribution model and how a coach could use it.</td><td>1-2 marks Limited analysis on how a coach could use attribution to develop an athlete's performance. Limited relevant examples are provided. The response shows basic use of terminology. Writing shows evidence of structure.</td></tr><tr><td>0</td><td>0 marks No knowledge of Weiner's attribution model and how a coach could use it.</td><td>0 marks No analysis.</td></tr></table>	Band	AO1 2 Marks	AO3 6 Marks	3		5-6 marks Excellent analysis of how a coach could use attribution to develop an athlete's performance. Relevant examples are provided throughout showing each category. The response is clearly expressed and shows an accurate use of terminology. Writing is very well structured.	2	2 marks Good knowledge of Weiner's attribution model and how a coach could use it.	3-4 marks Good analysis of how a coach could use attribution to develop an athlete's performance. Some relevant examples are provided. The response is adequately expressed and shows an accurate use of terminology. Writing is generally well structured.	1	1 mark Limited knowledge of Weiner's attribution model and how a coach could use it.	1-2 marks Limited analysis on how a coach could use attribution to develop an athlete's performance. Limited relevant examples are provided. The response shows basic use of terminology. Writing shows evidence of structure.	0	0 marks No knowledge of Weiner's attribution model and how a coach could use it.	0 marks No analysis.			
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Question	Mark Scheme	AO1	AO2	AO3	Total
2.(a)(i)	Figure 2 The split times (in seconds) for each 100m section for the British mixed 400m medley relay quartet 1 mark for correct answer 1 mark for calculation Calculate, using the data in Figure 2, the following: Average velocity between 0–100m. <i>Candidates may interpret these one of two ways:</i> <i>Either: distance over time:</i> Award two marks for (answer below is to 2 decimal places): $100/58.50 = 1.71\text{m/s or ms}^{-1}$ <i>Or: (displacement over time i.e. the start and finish points are at the same point)</i> Award two marks for: $0/58.50 = 0.00\text{m/s or ms}^{-1}$		2		2
2.(a)(ii)	Calculate, using the data in Figure 2, the following: 1 mark for correct answer 1 mark for calculation Average acceleration between 0–100m. <i>Acceleration is the rate of change in velocity and can be calculated as follows:</i> Acceleration = (final velocity (v) - initial velocity (u) / time taken: <i>Candidates may interpret this one of two ways:</i> <i>Either:</i> Award two marks for: average velocity at 100m was 1.71 m/s (100m / 58.50s) and their velocity at 0m was 0.00 m/s (0 m / 0.00s) m/s² or ms⁻², the change in velocity is 1.71 m/s (1.71 - 0.00) and when divided by the split time, average acceleration out of the blocks over the first 100m = $1.71 / 58.50 = 0.02923 \text{ m/s/s or m/s}^2$ or (0.03 m/s/s to 2 decimal places). Or (as the whole relay was held over 400m, the start and finish points are at the same point). Award two marks for: average velocity at 100m was 0 m/s (100m / 0s) and their velocity at 0m was 0.00 m/s (0 m / 0.00s) m/s² or ms⁻², the change in velocity is 0.00 m/s (0.00 - 0.00) and when divided by the split time, average acceleration out of the blocks over the first 100m = $0.00 / 0.00 = 0.00\text{m/s/s or m/s}^2$ Candidates do not need to show units in their response and do not need to round their answers.		2		2

Question	Mark Scheme	AO1	AO2	AO3	Total
2.(b)	Figure 3 swimmer Adam Peaty continuing with his intense training regime despite having broken the 5th metatarsal in his foot which undoubtedly caused a great level of anxiety at the time of the injury. Identify two types of bone and give an example for each. Award two marks from any two of the following types of bone (2x1): • Short bone (1) • Flat bone (1) • Irregular bone (1) • Sesamoid bone (1) • Long Bone (1) Award a further two marks from any of the following examples of each type of bone in the body (2x1): • Short bone examples include - Carpals, tarsals, calcaneum, (1) • Flat bone examples include - scapula, sternum, cranium, pelvis (1) • Irregular bone examples include - vertebrae (1) • Sesamoid bone examples include - patella (1) • Long bone – Femur, tibia, fibula, radius, ulna, humerus (1) <i>Accept any other examples of the types of bone listed above.</i>	4			4
(c) (i)	Define the terms, cognitive and somatic anxiety. Award up to 2 marks, 1 mark for each correct definition of cognitive and somatic anxiety: • Cognitive anxiety - anxiety experienced by the mind e.g., fear of failure or feeling apprehensive about being watched (1). • Somatic anxiety - anxiety experienced physiologically for example sweating, increased muscle tension or nausea (1). <i>Accept any other appropriate definitions of cognitive and somatic anxiety.</i>	2			2

Question	Mark Scheme	AO1	AO2	AO3	Total
(c) (ii)	Explain, using Figure 4, how a performer's cognitive and somatic anxiety levels may vary before, and after competition. <i>Award up to two marks for the use of information from figure 4:</i> - Figure 4 does not apply to all performers but is an example of how anxiety levels may alter depending on the situation and illustrates how a performer's cognitive and somatic anxiety levels may vary before, during and after competition but does not explain the reasons as to why. - Figure 4 shows that cognitive anxiety is experienced/elevated/increased prior to the event (1hr) and even several days beforehand (24-48hrs) and during the event and declines significantly after the event has taken place. Compared to somatic anxiety, which appears to be lower in the days before the event, rises significantly as the event gets closer (6hrs) and remains high during the event but then declines significantly after the event. Award a further four marks for an explanation of any of the indicative content points as to why the above happens: Award a maximum of two marks if only refer to one type of anxiety. Award 1-2 marks for a basic explanation of how a performer's cognitive and/or somatic anxiety levels may vary before and after competition. Award 3-4 marks for a detailed explanation (using examples throughout) how a performer's cognitive and somatic anxiety levels may vary before and after competition. Indicative content Cognitive anxiety: - Concerns worry and apprehension experiences during or about competitive situations or experiences. - For some, it rises prior to and during performance due to how the performer is interacting with the situation. For example, if the performer perceives it to be an important game/match/event they will generate more anxiety compared to perceiving it as less important. - This anxiety can manifest itself through worry and apprehension. Therefore, it will rise before the event if they are worrying about failure or due to a perceived lack of ability to perform well and therefore complete the task successfully.	2	4		6

Question	Mark Scheme	AO1	AO2	AO3	Total
	- This could all mean that the performer may have difficulty concentrating before and during competition which may negatively influence performance outcome. Somatic anxiety: - Concern's the performer's physiological responses when they are placed in a situation where they perceive an inability to compete successfully. - This could manifest itself through an increased HR, blood pressure, muscle tension, sweating and feelings of nausea. - All of which may initially hinder their performance but, usually once the event has started these levels tend to be brought under control as the performer starts to concentrate on the task in hand and settles into the event/race/match. Further points: - Evidence suggested that both types of anxiety are linked. Hence, if a performer starts to think or worry about their inability to perform successfully this can then start to induce physical symptoms such as increase in HR or sweating. - One can therefore lead to the other. - Therefore, if the performer is to be successful, they must learn how to bring these under control. <i>Accept any other appropriate explanations of how a performer's cognitive and somatic anxiety levels may vary before, during and after competition.</i>				

Question	Mark Scheme	AO1	AO2	AO3	Total
(c) (iii)	Describe three strategies that sports performers, such as Adam Peaty, could use to help manage levels of anxiety. Award 1 mark for a list of three strategies only Award 3 marks for 3 descriptions (3x1): <i>There are several methods that could be employed to help manage levels of anxiety and these can be divided into the cognitive and somatic strategies detailed below:</i> Cognitive strategies: • Imagery - Picturing a situation in the mind that is associated with relaxation will help to lower arousal. For example, a tennis player may imagine 'a quiet beach with blue sea and soft sand' before walking out onto the court. • Mental rehearsal - Practising the performance of a skill in the mind allows the performer to be confident in the actions and this preparation lowers arousal. For example, a gymnast might practise a difficult vault in their mind to focus on specific elements of the skill and fine tune their performance. • Thought-stopping - The performer blocks out negative thoughts such as feelings of failure or mistakes, and then they would develop positive thoughts e.g., successful skill completion. • Attentional control - this involves the performer altering their perceptual field which enables them to vary the amount of and type of information coming in. This is usually done by altering their selective attention e.g., a tennis player narrowing their attention during a serve and widening it again during a rally. • Self-talk - Using positive phrases to change the perception of the situation, for example, a Korfball about to play in major finals might feel 'butterflies in the stomach' and say to them-self "this is exciting" rather than "this is scary". Somatic strategies: • Biofeedback - is the use of physiological measuring equipment such as heart rate monitors, galvanic skin response detectors and blood pressure monitors. By monitoring the changes in these recordings an individual is able to physically decrease or increase the levels. Once this technique is learned, when required, the performer would be able to lower these responses without equipment; an example being, before taking a penalty in football. • Breathing control - the use of different breathing techniques such as box breathing. • Centring - is a breathing technique whereby the performer relaxes his/her chest and shoulder muscles and focuses on the movement of the abdominal muscles while taking deep, slow breath.	3			3

Question	Mark Scheme	AO1	AO2	AO3	Total
	• Meditation - Use of controlled breathing to induce a 'state' of mental calmness. The aim is to 'transcend' from anxious state to calm state through 'mantra', a monotonous word or sound that is repeated. This is often completed whilst sitting or lying in a quiet place and once the mind is relaxed the body will follow. • Progressive Muscular Relaxation (PMR) - involves progressively tensing and relaxing muscles combined with rhythmical breathing; relaxation is achieved by distinguishing the feelings of tension and relaxation. It can focus the mind on reducing somatic anxiety, but also serves as a distraction from negative thoughts so can also help reduce cognitive anxiety. Additional Strategies: • Goal Setting - is an effective method used to control anxiety as it allows the performer to direct their attention away from the source of anxiety and focus on achieving their target. Performers can set themselves SMART, performance, outcome, and process goals as a way of reducing their anxiety levels. • Pre-performance routines (PPR) - a sequence of task relevant thoughts and actions which an athlete engages in systematically prior to his or her performance of a specific sport skill. They include task relevant cues, the selection of the appropriate motor schema and can improve concentration. <i>Accept any other appropriate descriptions of stress management techniques.</i>				

Question	Mark Scheme	AO1	AO2	AO3	Total
(d) (i)	Adam Peaty later paid tribute to his coach Mel Marshall's leadership in helping him to bounce back to claim Commonwealth gold in the men's 50m breaststroke final. Identify two leadership styles that could be used to maximise performance in sport. <i>Award two marks from any of the following:</i> There are numerous leadership styles that could be used to maximise performance in sport which are as follows: • Autocratic/Authoritarian leader (1) • Task centred/task-oriented leader (1) • Democratic leader (1) • Relationship-centred/person-oriented leader (1) • Laissez-faire leader (1) <i>Accept any other appropriate leadership styles that could be used to maximise performance in sport.</i>	2			2

Question	Mark Scheme	AO1	AO2	AO3	Total
(d) (ii)	Evaluate the effectiveness of different leadership styles in maximising performance in sport. <i>Banded answer</i> <i>The content below is indicative of what candidates might include in their evaluations but is, by no means, exhaustive.</i> There are numerous leadership styles that could be used to maximise performance in sport which are as follows: Autocratic leadership: • This type of leader dictates to the group/team/individual what actions to take, with very little or no input from the members and therefore all decisions are made by the leader. • This type of leader is generally not concerned with interpersonal relationships within the group and is task-orientated, with the primary focus being on completing the task as soon as possible. • The group tends to work hard when this leader is present but maybe less productive when this leader is not present. Effectiveness - This style of leadership is most effective when: • The situation involves team sports or a large number of participants, • Performers are less experienced, • Decisions have to be made quickly, • There is limited time available to complete the task • The task is complex or dangerous. <i>This style of leadership is less effective when:</i> • The situation involves individual sports or a smaller number of participants, • Performers are more experienced, • Relationships are fraught within the team • Decisions don't have to be made quickly, • The task is simple. Democratic leadership: • This type of leader encourages the group to discuss ideas and involves everyone in the decision-making process but will often then make the final decision and oversee its execution. • This style of leadership is generally more informal and relaxed within the group. • The group or team tends to work more collaboratively to complete tasks or achieve set goals.	2		8	10

Question	Mark Scheme	AO1	AO2	AO3	Total
(d) (ii)	Effectiveness - This style of leadership is most effective when: • This style of leadership is most effective when the situation involves individual sports or coaching situations, • Performers are more experienced, • There are good relationships within the team • When decisions don't have to be made quickly. <i>This style of leadership is less effective when:</i> • The situation involves team sports or a large number of participants, • Performers are less experienced, • Decisions have to be made quickly, • There is limited time available to complete the task • The task is complex or dangerous. Laissez-faire leadership: • This style of leadership involves the leader taking less if any responsibility therefore allowing the group to make all the decisions. • The leader therefore tends to leave the group/team to their own devices, generally adopting a passive role and as a result the task is less likely to be completed if they are not around. • groups can become aggressive towards one another, do little work and give up easily. Effectiveness - This style of leadership is most effective when: • This style of leadership is most effective when the situation involves performers are more experienced and highly skilled, so they need less guidance, • There are good relationships within the team. • When performers have extremely high levels of intrinsic motivation. <i>This style of leadership is less effective when:</i> • The situation involves team sports or a large number of participants, • Performers are less experienced, • Decisions have to be made quickly, • There is limited time available to complete the task. • The task is complex or dangerous. • Performers have low levels of intrinsic motivation. Task-oriented leaders: • The leader is focused on meeting all goals/set tasks and objectives. They are concerned with improving performance, productivity and will prioritise and assign tasks to ensure group/team members stay on task. Effectiveness - This style of leadership is most effective when: • The situation is most favourable - i.e., a good relationship exists between the leader and the group				

Question	Mark Scheme	AO1	AO2	AO3	Total
	members, the leader is highly respected, the group is of a high ability level with high levels of motivation, the group has a strong network of support, and the task is simple and, least favourable where the opposite to these factors is apparent. <i>This style of leadership is less effective when:</i> - The situation is moderately favourable, i.e., group members prefer to consult with the leader prior to decision making, the group are of a reasonable level and are moderately motivated and the task has no definite outcome. Relationship-oriented leaders: Effectiveness - This style of leadership is most effective when: - The situation is moderately favourable, i.e., group members prefer to consult with the leader prior to decision making, the group are of a reasonable level and are moderately motivated and the task has no definite outcome. <i>This style of leadership is less effective when:</i> - Good relationships exist between the leader and the group members, the leader is highly respected, the group is of a high ability level with high levels of motivation, the group has a strong network of support, and the task is simple and, least favourable where the opposite to these factors is apparent. Additional factors that may determine their effectiveness: The sporting situation - democratic and relationship leaders are most effective in relation to pre-game planning, small and basic groups tasks. Autocratic and task-oriented leaders are most effective when time is constrained, with larger groups and situations that require decisions to be made quickly. Member requirements - Task-orientated/autocratic leaders are said to be most effective when the groups are older, novice and male. Relationship-orientated/democratic leaders are said to be most effective when the groups are younger, more experienced/skilled and female. Situational favourableness (Fiedler's Contingency Model) - suggests that at different types of leaders should alter their style of leadership to suit the favourableness of the situation which is dependent on the relationship between the leader and the group, the leader's position of power and authority and the task structure. Fiedler proposed that task orientated styles would be most effective in very favourable or unfavourable situations and that relationship-oriented leaders would be most effective in moderately favourable situations.				

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(d) (ii)	• Chelladurai's Multi-dimensional model - personality of the leader (leader characteristics), members characteristics and situational characteristics all impact upon the effectiveness of the leader and overall success. • Rather than sticking to one leadership style the leader should assess the demands of the situation, the members needs and the required outcome and adopt a style that better suits these aspects. <i>Accept other appropriate evaluations of the effectiveness of leadership styles to maximising performance.</i>																		
	<table><tr><th>Band</th><th>AO1 2 Marks</th><th>AO3 8 Marks</th></tr><tr><td>3</td><td></td><td>6-8 marks Excellent evaluation of the effectiveness of various leadership styles in maximising performance in sport. Specialist terminology used throughout showing how adopting a particular leadership style can be used to improve performance with particular reference to specific sporting examples. Complex ideas are expressed with clarity. Relevant examples are provided throughout, and most key factors identified and evaluated in detail.</td></tr><tr><td>2</td><td>2 marks Good knowledge of leadership styles and their effectiveness in sport. Good technical language employed.</td><td>4-5 marks Good evaluation of the various leadership styles in maximising performance in sport. Some key factors identified and evaluated in some detail. Conclusions may be one-sided (only most effective or least effective evaluated) or lack evidence given.</td></tr><tr><td>1</td><td>1 mark Limited knowledge of leadership styles and their effectiveness. Limited technical language employed.</td><td>1-3 mark Limited evaluation of the various leadership styles in maximising performance in sport. Superficial judgements made with little link to relevant theory.</td></tr><tr><td>0</td><td>0 marks Response not worthy of credit.</td><td>0 marks Response not worthy of credit.</td></tr></table>	Band	AO1 2 Marks	AO3 8 Marks	3		6-8 marks Excellent evaluation of the effectiveness of various leadership styles in maximising performance in sport. Specialist terminology used throughout showing how adopting a particular leadership style can be used to improve performance with particular reference to specific sporting examples. Complex ideas are expressed with clarity. Relevant examples are provided throughout, and most key factors identified and evaluated in detail.	2	2 marks Good knowledge of leadership styles and their effectiveness in sport. Good technical language employed.	4-5 marks Good evaluation of the various leadership styles in maximising performance in sport. Some key factors identified and evaluated in some detail. Conclusions may be one-sided (only most effective or least effective evaluated) or lack evidence given.	1	1 mark Limited knowledge of leadership styles and their effectiveness. Limited technical language employed.	1-3 mark Limited evaluation of the various leadership styles in maximising performance in sport. Superficial judgements made with little link to relevant theory.	0	0 marks Response not worthy of credit.	0 marks Response not worthy of credit.			
Band	AO1 2 Marks	AO3 8 Marks																	
3		6-8 marks Excellent evaluation of the effectiveness of various leadership styles in maximising performance in sport. Specialist terminology used throughout showing how adopting a particular leadership style can be used to improve performance with particular reference to specific sporting examples. Complex ideas are expressed with clarity. Relevant examples are provided throughout, and most key factors identified and evaluated in detail.																	
2	2 marks Good knowledge of leadership styles and their effectiveness in sport. Good technical language employed.	4-5 marks Good evaluation of the various leadership styles in maximising performance in sport. Some key factors identified and evaluated in some detail. Conclusions may be one-sided (only most effective or least effective evaluated) or lack evidence given.																	
1	1 mark Limited knowledge of leadership styles and their effectiveness. Limited technical language employed.	1-3 mark Limited evaluation of the various leadership styles in maximising performance in sport. Superficial judgements made with little link to relevant theory.																	
0	0 marks Response not worthy of credit.	0 marks Response not worthy of credit.																	

Question	Mark Scheme	AO1	AO2	AO3	Total
3. (a) (i)	'The sport of tennis follows the sun 10 months of the year and more than 80 percent of its tournaments are played outdoors. There are no substitutions and matches last on average two to three hours' (Braden and Fitzpatrick, 2022) Identify two responses of the body to excessive heat during exercise. Award one mark for each stated response to excessive heat to a maximum of two marks (these should be responses and not adaptations). • Dehydration (1) • Hyperthermia/a rise in core body temperature (1) • Decrease in blood plasma volume/consequent circulatory problems (1) • Reduced SV (1) • Increase in HR (1) • Decrease in BP (1) • Increase in BR (1) • Decrease rate of oxygen transportation (1) • Increase in blood flow to the skin (vasodilation) (1) • Sweating (1) • Reduced production of ATP (1) • Reduction in the transportation of glucose/glycogen and fatty acids to the muscles for energy (1) • Increased levels of lactic acid production (1) • Impaired muscle function (1) • Fatigue (1) • Slower/decreased reactions (1) • Impairment to concentration (1) • Reduced electrolytes (1) • Muscle cramping (1) • Nausea/vomiting (1) • blurred vision (1) • Fainting (1) • Blushed/red skin (1) • Dizziness (1) <i>Accept other appropriate responses to excessive heat.</i>	2			2

Question	Mark Scheme	AO1	AO2	AO3	Total
(a) (ii)	Explain the hydration techniques sports performers could use before, during and after exercise to help minimise the effects of dehydration. Award 1-2 marks for a basic explanation (little or no reference to volumes and timings) of hydration techniques across one aspect either before, during or after exercise. Award 3-4 marks for an explanation that makes some reference to volumes and timings of hydration techniques across two aspects. Award 5-6 marks for a detailed explanation (volumes and timings are used throughout) of hydration techniques used across all aspects of the question - before, during and after exercise. Introduction It is vital to hydrate before, during and after exercise. An individual should remain hydrated at all times, and not just before competition. The bigger the individual and the greater the amount of training, means the greater amount of fluid should be consumed using the following techniques: Prior to exercise: • Generally, between 4-7 litres of water should be consumed over a 24-hour period. Just prior to exercise, particularly in events or sports taking place over an extended period of time, it is important to be fully hydrated prior to competition. • Depending on weather conditions, an individual should consume up to 2 litres of water, 100-150ml every 15 minutes. This amount of water should be consumed over 2 to 3 hours and not all at once to prevent bloating and possible sickness. • The above values should double in hot conditions. During exercise: • The amount of water consumed during exercise depends on weather conditions and the size of the individual. • It is important to consume small amounts of fluids but to drink them at regular intervals. • A guide to hydration during exercise is to consume between 150-250 ml every 10-15 minutes or between $\frac{1}{2}$ - 1 litre per hour of exercise (double in hot conditions). • If exercising for longer than 90 minutes, then the consumption of energy drinks can also be beneficial to replace lost carbohydrate/glycogen stores and electrolytes, which are all essential for energy (ATP) production.		6		6

Question	Mark Scheme	AO1	AO2	AO3	Total
	After exercise: - It is essential to rehydrate after exercise in order to aid the recovery process: - A method used to control levels of hydration often used by professional athletes is to weigh themselves before and after prolonged exercise or competition. Then for every 1 kg of body weight that is lost, approximately 1.5 litres of fluid should be consumed over a period of hours, rather than all at once. - consume 150% lost fluid to rehydrate. Sports Drinks: Hypertonic sports drinks consist of the highest percentage of carbohydrates which further increase the osmolality of the drink. Due to excessive amounts of carbohydrates, they sit in the stomach for long periods of time and increase the rate of water flow into the intestine of the human body and so need to be consumed either before or after exercise. Hypotonic - contain a lower concentration of salt and sugar than the human body. Quickly replaces fluids lost by sweating. Suitable for athletes who require fluid without a carbohydrate boost. Isotonic - contain between 6-8% carbohydrates, providing athletes with a balance of energy, electrolytes and fluids. Prior to exercise: - Performers should aim to drink 5-10ml of either isotonic or hypertonic fluids per kilogram of your body weight in the 4 hours before training or competition. This will allow enough time for the fluid to be absorbed. - For a 60kg runner, this equates to 300-600ml of fluid, or 1-2 glasses. During exercise: - Drinking isotonic fluids little and often from the start of performance is a smart way to stay hydrated but also prevent stomach discomfort. After exercise: - For effective post-exercise rehydration, you should aim to consume 150% of fluid lost as sweat. 1L of water weighs 1kg, if an athlete weighs 1kg less after exercise, they need to drink 1.5L of either hyper or hypotonic fluids (about 6 glasses) afterwards to fully rehydrate. Sip little and often over the following hours to achieve this. <i>Accept any other appropriate explanations of hydration techniques used before, during and after performance.</i>				

Question	Mark Scheme	AO1	AO2	AO3	Total
3. (b)	Analyse how fitness levels, exercise intensity and duration affect fuel usage during physical activity. <i>Banded answer</i> <i>The content below is indicative of what candidates might include but is, by no means, exhaustive.</i> <i>Level of fitness</i> - Fitter individuals will take longer to reach their anaerobic threshold. PC stores can be conserved, and these stores will be replenished at a much faster rate. - Fitter individuals also have increased glycogen stores and so are able to carry out medium-high intensity activity for a longer period of time. - Fitter individuals will be able to utilise more fats at lower intensity leaving greater stores of carbohydrates for when exercise intensity increases. <i>Exercise intensity</i> - The body will always use the most efficient source of fuel. - For very high intensity activity (ATP/PC system), phosphocreatine (PC stores) is utilised to convert ADP into ATP. - For medium-high intensity activity (where lactic acid system is used), the main fuel utilised is carbohydrate. Glycogen is broken down into glucose then pyruvic acid and then finally into lactic acid (lactate). This process creates energy. - For low-medium intensity exercise (where the aerobic system is used), a mixture of carbohydrates and fats are utilised. Fats require 15% more oxygen to be metabolised than carbohydrates. <i>Duration of exercise</i> - For short exercise duration, the main food fuel utilised will be carbohydrates. - For moderate duration exercise (up to 2hrs), carbohydrates and fats will be used equally. - For prolonged exercise, the percentage of carbohydrate usage will decrease, and percentage of fats used will increase. Links with the concept of glycogen depletion (hitting the wall).	2		8	10

Question	Mark Scheme		AO1	AO2	AO3	Total
3. (b)	Band	AO1 2 Marks	AO3 8 Marks			
	3		6-8 marks Excellent analysis of all three areas . Relevant examples are provided throughout. The response is clearly expressed and shows an accurate use of terminology. Writing is very well structured. Complex ideas are expressed with clarity. Relevant examples are provided throughout, and most key factors identified and discussed in detail.			
	2	2 marks Good knowledge of food fuel usage during physical activity. Good technical language employed.	4-5 marks Good analysis in at least two areas. Relevant examples are provided throughout application of exercise intensity, duration, and levels of fitness. The response is adequately expressed and shows an accurate use of terminology. Writing is generally well structured. Some key factors identified and discussed in some detail.			
	1	1 mark Limited knowledge of food fuel usage during physical activity. Limited technical language employed.	1-3 mark Limited analysis looking at predominantly one area . Relevant examples are provided. Limited application of exercise intensity, duration and levels of fitness. The response shows basic use of terminology. Writing shows evidence of structure. Superficial judgements made with little link to relevant theory.			
	0	0 marks No knowledge of food fuel usage during physical activity	0 marks No analysis of how performance analysis is used. No application of exercise intensity, duration, and levels of fitness			
3. (c)	Identify three factors that affect the distance travelled by a projectile such as a tennis ball. Award one mark from each stated factor to a maximum of three marks 3x1): Factors affecting the horizontal distance travelled of a projectile include: • Velocity/speed of release (1) • Angle of release (1) • Height of release (1) • Weight of object (1) • Air resistance/drag (1) • Amount and type of spin (Magnus) (1) • Amount of force/power applied (1) Accept any other appropriate factors that may affect the horizontal distance travelled by a projectile.		3			3

Question	Mark Scheme	AO1	AO2	AO3	Total
3. (d)	A volley is a shot in tennis where a player returns the ball before it bounces. Assess why a volley within a game of tennis can be classified as a complex skill. Award one mark for basic assessment Award two marks for developed assessment Volley can be classed as a complex skill as there are many decision making, perceptual elements and thought process involved in it (1) i.e., tennis players are trying to detect as many features as they can - where is the shot heading, how much speed/spin/height etc. is on it, along with many others, where do they play the shot in order to be in the best possible scenario for the next shot etc (1) <i>Accept any other appropriate justifications for the classification of a tennis serve as both a discrete skill and a complex skill</i>			2	2
3. (e)	Tennis player Nick Kyrgios was fined a total of \$32,500 for unsportsmanlike behaviour at the 2022. <u>Discuss the view that that levels of deviance in modern sport have eroded the values of fair play and sportsmanship.</u> <i>Banded answer</i> <i>The content below is indicative of what candidates might discuss but is, by no means, exhaustive.</i> Evidence it is out of control. - Deviance (from the Latin de, from, and via, way) refers to behaviour that is seen to deviate from the norm within society. Examples may be used to illustrate the rise of such deviant behaviour e.g., violent play, drug taking, gamesmanship such as diving in football and sledging in cricket. Examples of off field deviant behaviour might include bribery, illegal payments (so called 'bungs') and corruption relating to the World Cup and Olympic bidding process. - Whilst deviance has been a common feature in some sports (such as athletics and cycling) for many years, no sport appears to be 'safe'. The rise of professionalism led, unsurprisingly, to a rise in commercialisation. - Some argue that sport has become overly commercialised – the rewards for winning have become so significant that a 'win at all costs' mentality has permeated into the bloodstream of sport. - The need for fame and fortune = Pressure to win. - The concept of sportsmanship has been eroded and replaced by increased gamesmanship, deviant and even violent behaviour as athletes (and teams/sports	2		8	10

Question	Mark Scheme	AO1	AO2	AO3	Total
	authorities) seek to gain the vast rewards associated with success. • modern day ethos of society of win at all costs • Match fixing. • Illegal payments. • Rewards are worth the risk/others are doing it and getting away with it. • Lack of effective methods to manage deviant behaviour. • Deviant over-conformity in the form of doping is highly prevalent in today's sporting arena and is clearly a serious problem that has been out of control for some time. • Victor Conte and several high-profile athletes have spoken about the prevalence of doping in sport and their experiences and involvement with doping providing evidence of doping calendars and explaining how things have to be taken at certain times and in certain amounts to aid and mask other substances and get certain results (Dwain Chambers, Marion Jones, Shane Mosely to name a few) • Systematic Doping/state-wide – Russian doping and East German doping scandals (Doping for Gold). • Levelling the playing field – Dr Rodchenkov (Russian doping mastermind) suggests that 20+ states are doping; anonymous surveys have revealed over 44% of athletes are doping. Evidence it is not out of control. • There is no evidence that rates of deviant under conformity on the field are any higher today than in the past - media coverage and technology have enabled us to see rule violations and in slow motion, stop action, and replay after replay and, many forms of deviance were more prevalent and blatant when technology of enforcement was limited. • Sportsmanship and fair play are still an important part of sport. Players who demonstrate good sportsmanship not only abide by the written rules of the game but also follow the unwritten ones such as walking before the umpire's decision in cricket or passing the ball back to the attacking team after an injury. It is naive to assume that such behaviour should still be part of modern professional sport given the vast sums of money available for success. Examples to illustrate this counter argument should be included. In some instances, such as East Germany in the 1970's deviant practices such as drug taking were part of a state-sponsored system (known as State Plan 14:25) and linked to the promotion of a political ideology. Success was used for propaganda purposes rather than for financial gain. It may be the case that deviance in sport is not increasing, it is just the case that the sports authorities are getting better at catching the cheats (e.g., important of World Anti-Doping Agency (WADA) and new drug testing				

Question	Mark Scheme		AO1	AO2	AO3	Total
	technology) or that there is more media coverage of issues relating to deviance in sport. <i>Accept any other appropriate discussions in relation to whether or not deviance is out of control in sport.</i>					
	Band	AO1 2 Marks	AO3 8 Marks			
	3		5-8 marks Excellent discussion of the arguments for and against the prevalence of deviance in sport. Specialist terminology used throughout showing both sides of the discussion as to whether there has been an increase in deviant behaviour and the extent to which it has led/is leading to the erosion of fair play and sportsmanship with particular reference to evidence and specific sporting examples. Complex ideas are expressed with clarity. Relevant examples are provided throughout, and most key factors identified and discussed in detail.			
	2	2 marks Good knowledge of deviancy and its impact on fair play and sportsmanship. Good technical language employed.	3-4 marks Good discussion of the arguments for and against the prevalence of deviance in sport. Specialist terminology used throughout. Answers may be one sided as to whether there has been an increase in deviant behaviour and the extent to which it has led/is leading to the erosion of fair play and sportsmanship with particular reference to evidence and specific sporting examples. Some key factors identified and discussed in some detail. Conclusions may be one-sided (only for or against discussed) or lack evidence given.			
	1	1 mark Limited knowledge of deviancy and its impact on fair play and sportsmanship. Limited technical language employed.	1-2 mark Limited discussion of the arguments for and against the prevalence of deviance in sport. Specialist terminology used throughout the discussion as to whether there has been an increase in deviant behaviour and the extent to which it has led/is leading to the erosion of fair play and sportsmanship with particular reference to evidence and specific sporting examples. Superficial judgements made with little link to relevant theory.			
	0	0 marks Response not worthy of credit.	0 marks Response not worthy of credit.			

Question	Mark Scheme	AO1	AO2	AO3	Total
4.	With the recent Euro 2022 victory of the Lionesses, women's football is now the most popular sport among women and girls in the UK. The Football Association reported that 3.4 million women play the game, increasing 54% since 2017. Discuss, the potential reasons for the increase in participation and the barriers still faced by women in sport. <i>Banded Answer</i> <i>The content below is indicative of what candidates may discuss but is, by no means, exhaustive:</i> Arguments for an increase in participation: - Increased media coverage which has raised the profile of women's sport/which has stimulated participation/increased profile of role models stimulates participation e.g., Dina Asha Smith, Lionesses, Sarina Wiegman, Serena Williams - Success of Women's Euro's 2022 - Revenue Increases for women's sports - has played sports a potential career for women/ increased prize money/enabled more women's sports to become professional for example, Women's Premier League football, Netball Super League, WNBA, women's golf and mixed snooker have all enabled more women to train full time. - Others. - Increase in female presenters - presenters/pundits/commentators e.g., Gabby Logan, Clare Balding, Alex Scott now found in traditionally male sports e.g., Match of the Day, Euro's 2022. Women's Rugby League World Cup 2022. - Successful media coverage of major championships/Olympics/Commonwealth Games etc – more funding, better facilities/coaching/equipment - sport in the UK has announced an additional £11.2m of investment to support preparations for Paris 2024 - More sponsors attracted - foreign investors etc. - Growth in spectatorship – Women's Euros final 2022 took place in front of a record crowd of 87,192. - Increased entertainment / information for spectators. - Roles of the media - The media informs / educates / entertains / advertises. - The media can inspire / encourage a 'feel good factor' / nation building or patriotism. - The media promotes or increases awareness of (minority) sports. - Myths or stereotypes are being broken down – Cricket, football, rugby, snooker etc. - Rooney Rule. - FA initiatives to improve coach diversity.	4		16	20

Question	Mark Scheme	AO1	AO2	AO3	Total
	• Campaigns to eradicate racism from sport – kick it out, No Room for Racism, UK Sport's #TellYourStory campaign, FARE. • Others. Barriers to participation (Opportunity, provision, esteem) • Less opportunities to participate e.g., fewer clubs for women in particular sports, more restricted programme of physical education and school sport. • Fewer role models Less media coverage especially on mainstream television and problems relating to sexploitation e.g., <i>Norwegian women's beach volleyball team battle with governing bodies to wear less revealing attire were ignored and were subsequently fined 150 euros per player for their protest.</i> • Lack of opportunities in coaching, management, and leadership for women. • Less funding for female sport/less sponsorship Issues relating to body image and self-esteem/media representation of ideal body image. • For both groups some stereotypical myths and stereotypes still exist within sport and society. • Prejudice. • Other relevant points which are not necessarily gender e.g., lack of time and money. • Lack of diversity - e.g., out of a 23-woman squad, the England Women's team had just three players of colour. • A lot of major training facilities for women are typically located in suburban areas like the Women's Super League training facilities in places like Surrey, Hertfordshire and Dagenham for big London clubs like Arsenal, Chelsea and West Ham. • Expecting female players to train miles away from their home grounds isn't good enough, and this is only making things more difficult for talented young female players and players of colour. . • Licence holders who have graduated under the FA. • Unequal access – despite numerous regeneration and redevelopment projects many parts of the country do not experience the same facility and transport benefits. • Female presenters are often young/attractive women. • Media coverage/pressure - leading to many athletes withdrawing from competition for mental health reasons e.g., Naomi Osaka and Simone Biles. • Participation decline - despite participation figures rising during major events, participation figures in the UK are continuing to decline year on year/easier and cheaper to stay at home at spectate. • Media control of sport / timing or scheduling of events. • Increased exposure of negative role models.				

Question	Mark Scheme	AO1	AO2	AO3	Total
	- Unequal funding of sport leads to unequal access to facilities, clubs etc which means a smaller pool of talent is available to draw upon. - Irresponsible press coverage / myths and stereotypes reinforced. - Minority sports (still) get limited coverage / are less marketable such as netball, swimming, and gymnastics. <i>Accept any other appropriate related discussions.</i>				

Banding for Question 4.

Band	AO1 4 Marks	AO3 16 Marks
3		11-16 marks Outstanding discussion of the reasons for an increase in participation and the barriers still faced by women. Detailed and reasoned judgements are made. Discussion is balanced across both positive and negative impacts and the groups in question and well evidenced throughout. The response is clearly expressed and shows accurate use of technical terminology. Writing is very well structured using accurate, grammar, punctuation, and spelling.
2	3-4 marks Good knowledge and understanding of the reasons for an increase in participation and the barriers still faced by women	5-10 marks Good discussion of the reasons for an increase in participation and the barriers still faced by women. Judgements are made but not always evidence based. Discussion tends to be one-sided , concentrating on either the positive or negative impacts and places more emphasis on one group over the other. The response is adequately expressed and shows appropriate use of technical terminology. Writing is generally well-structured using reasonably accurate grammar, punctuation, and spelling.
1	1-2 marks Limited knowledge and understanding of the reasons for an increase in participation and the barriers still faced by women	1-4 marks Limited discussion of the reasons for an increase in participation and the barriers still faced by women. Discussion is one-sided and is superficial (lack of evidence used) . The response shows basic use of technical terminology. Writing shows some errors in grammar, punctuation, and spelling.
0	0 marks No knowledge and understanding of the reasons for an increase in participation and the barriers still faced by women	0 marks No discussion of the reasons for an increase in participation and the barriers still faced by women in sport.

Component 2: Assessment objectives mark allocation

	Q1	Q2	Q3	Q4	TOTAL
AO1	10	14	8	4	36
AO2	5	10	6	0	21
AO3	6	8	18	16	48
TOTAL	21	32	32	20	105

* 10 marks for quantitative skills – 1a(i) (2), 1a(ii) (2) & 1c(ii)