



GCE AS MARKING SCHEME

SUMMER 2022

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

INTRODUCTION

This marking scheme was used by WJEC for the 2022 examination. It was finalised after detailed discussion at examiners' conferences by all the examiners involved in the assessment. The conference was held shortly after the paper was taken so that reference could be made to the full range of candidates' responses, with photocopied scripts forming the basis of discussion. The aim of the conference was to ensure that the marking scheme was interpreted and applied in the same way by all examiners.

It is hoped that this information will be of assistance to centres but it is recognised at the same time that, without the benefit of participation in the examiners' conference, teachers may have different views on certain matters of detail or interpretation.

WJEC regrets that it cannot enter into any discussion or correspondence about this marking scheme.

GCE PHYSICAL EDUCATION - UNIT 1

SUMMER 2022 MARK SCHEME

Question	Mark Scheme	AO1	AO2	AO3	Total
1. (a)	<p>Identify the stage of learning where movements are consistent, efficient and aesthetically pleasing.</p> <p>1 mark for correct answer (Only accept one box ticked)</p> <p>D - Autonomous</p>	1			1
(b)	<p>Justify the type of practice used to develop open skills, use practical examples to support your answer.</p> <p>1 mark for identifying the correct practice 1 mark for justification 1 mark for supporting example</p> <p>(marks can be awarded for correct justification and example even if incorrect practice)</p> <p>Type of practice – Variable</p> <ul style="list-style-type: none"> • Practising skills in a variety of different contexts • Using techniques and tactics used in competition • Practices allow decision making to take place with multiple potential outcomes <p>e.g. 4v2 practices or any practices that include defenders who allow decisions to be made</p>	1	2		3

Question	Mark Scheme	AO1	AO2	AO3	Total
(c)	<p>Guidance is provided by coaches across all the stages of learning</p> <p>Describe three different types of guidance and discuss the potential benefits and limitations of each method.</p> <p>AO1 1 mark for each description of a type of guidance (max 3 marks) 3x1 mark</p> <p>AO3 1-2 marks discussion of up to two types of guidance 3-4 marks discussion must include benefits and limitations of the three types of guidance</p> <p>Verbal guidance</p> <p>Description and Example Providing instructions, information or coaching points, which can be technical or tactical in nature e.g. 'swing smoothly' 'focus on target' 'point toes'</p> <p>Benefit</p> <ul style="list-style-type: none"> • Highlights weaknesses / gives detail • Helps focus on key aspects or finer points • Builds on knowledge gained by visual guidance • gives information to improve performance • good for tactics or strategies <p>Limitations</p> <ul style="list-style-type: none"> • Learners can only remember a limited amount of spoken information. • Can cause information overload • Information should be basic and short for cognitive stage learners • Difficult to communicate subtleties and complexities of tactics. 	3		4	7

Question	Mark Scheme	AO1	AO2	AO3	Total
	<p>Visual guidance</p> <p>Description and Example Showing or watching correct action or what needs to be done. Often related to demonstration.</p> <ul style="list-style-type: none"> • Demonstration of practice, tactic or technique • Video • Use of gridlines or pitch markings • Picture or image <p>Benefits</p> <ul style="list-style-type: none"> • Provides a mental picture for the performer • Can demonstrate best practice • Provides greater understanding of movement and tactics <p>Limitations</p> <ul style="list-style-type: none"> • Should be used in conjunction with verbal guidance so appropriate points are highlighted • Too many points should not be highlighted to prevent information overload • Demonstration/video/ must be a correct example of the skill, otherwise there is a risk performer will pick up poor technique • Needs to be very detailed and specific for elite performers. <p>Mechanical/manual guidance (however these could also be spilt and described separately if they understand the distinction)</p> <p>Description and Example</p> <ul style="list-style-type: none"> • Use of apparatus or aids or technology • When the performer is put through the movement by a coach or instructor • Using pulleys and belts for gymnastics and trampolining • Scrum machine or tackle pads in rugby • Cones to mark foot patterns <p>Benefits</p> <ul style="list-style-type: none"> • Helps confidence of performer • Encourages correct proprioception or kinesthesia • Safety <p>Limitations</p> <ul style="list-style-type: none"> • Expense of equipment e.g. Pulleys and belts • Performer can become dependent on the support • Providing continued support for movements has little kinaesthetic value • Potential safety issues if support is incorrect. 				

Question	Mark Scheme	AO1	AO2	AO3	Total
2. (a) (i)	Identify the recognised sub-maximal fitness test. B = PWC 170	1			1
(ii)	<p>Discuss the benefits and limitations of maximal versus sub-maximal fitness testing.</p> <p>1-2 marks for a basic discussion on benefit and or limitations of testing 3-4 marks for developed discussion on the benefits and limitations of testing 5 marks for developed discussion on the benefits and limitations of both submaximal and maximal testing</p> <p>Sub-maximal</p> <p>Benefits</p> <ul style="list-style-type: none"> • Easier for performer when measuring aerobic power • Motivation doesn't have to be so high to complete • Fewer health risks • Used with sedentary populations <p>Limitations</p> <ul style="list-style-type: none"> • Less accurate • Only a predictor of a performer's maximum work rate • Can only be used on predominantly the aerobic components of fitness • Can't measure speed, power and strength accurately <p>Maximal</p> <p>Benefits</p> <ul style="list-style-type: none"> • If motivation is high then more accurate results when testing up to maximum heart rate • Can measure all anaerobic components of fitness • More relatable to sporting situations <p>Limitations</p> <ul style="list-style-type: none"> • Increased health risk • Requires high degree of motivation • If testing aerobic power, then only one test could be completed due to fatigue • Difficult to establish if performer is working at maximal level 			5	5

Question	Mark Scheme	AO1	AO2	AO3	Total
(b)	<p>Using Figure 1 as a guide, explain how a coach could interpret and use the data.</p> <p>1-2 marks for a basic explanation on how a coach could interpret and use the data. 3-4 marks for developed explanation how a coach could interpret and use the data. 5-6 marks for detailed explanation on how a coach could interpret and use the data.</p> <p>Interpret results by comparing to:</p> <ul style="list-style-type: none"> • Identify strengths • Identify weaknesses • Comparative data • Previous scores • Other team members • Players in same/similar position • Progress <p>Results can be used for:</p> <ul style="list-style-type: none"> • Goal setting • Target setting • Setting up/amending a training programme • Talent identification • High performance athletes 	3	3		6

Question	Mark Scheme	AO1	AO2	AO3	Total										
3. (a)	<p>Using Figure 2, in relation to the ankle joint of the take-off foot, Identify the following</p> <table border="1"> <tr> <td>Plane</td> <td>Sagittal</td> </tr> <tr> <td>Axis</td> <td>Frontal/Transverse</td> </tr> <tr> <td>Type of joint</td> <td>Synovial/Condylod</td> </tr> <tr> <td>Movement pattern</td> <td>Plantar flexion</td> </tr> <tr> <td>Agonist</td> <td>Gastrocnemius - calf</td> </tr> </table> <p>5x 1 mark</p>	Plane	Sagittal	Axis	Frontal/Transverse	Type of joint	Synovial/Condylod	Movement pattern	Plantar flexion	Agonist	Gastrocnemius - calf	5			5
Plane	Sagittal														
Axis	Frontal/Transverse														
Type of joint	Synovial/Condylod														
Movement pattern	Plantar flexion														
Agonist	Gastrocnemius - calf														
(b) (i)	<p>Identify the predominant muscle fibre type used during the take-off and justify your selection</p> <p>1 mark for identification of fibre type Up to 3 marks for the justification</p> <p>(marks can be awarded for the correct justification even though fibre type is incorrect)</p> <p>Fibre Type – Fast Twitch or Type IIb or Fast Twitch Glycolitic (FTG)</p> <p>Justification</p> <ul style="list-style-type: none"> • Long jump is a maximal event requiring 100% effort • Very short duration event • Uses ATP-CP for energy, which is supplied instantly • Contracts forcefully/powerfully • Doesn't require oxygen 	1	3		4										

Question	Mark Scheme	AO1	AO2	AO3	Total
(ii)	<p>In relation to weight training, explain the importance of intensity and duration in order to develop a long jumper's take off</p> <p>1-2 marks for basic explanation of the importance of intensity and/or duration in order to develop a long jumper's take off and/or the relationship between weight training and long jump 3-4 marks for developed explanation of the importance of intensity and duration in order to develop a long jumper's take off and the relationship between weight training and long jump</p> <p>The explanation needs to include why intensity and duration are important to the long jumper– developing: speed/strength/power</p> <p>Relationship between weight training and long jumping intensity and duration – explosive, high intensity short duration movements</p> <p>Intensity</p> <ul style="list-style-type: none"> • High intensity exercise e.g. 80-100% max, using the ATP-PC system (related to strength or power) <p>Duration</p> <ul style="list-style-type: none"> • 3-5 sets, otherwise fatigue will be a factor • Low reps (1-8 max) – To ensure that contractions are either powerful/fast /slower but with higher load relating to strength <p>If the period of recovery is too short, then it will become more muscular endurance</p>		4		4

Question	Mark Scheme	AO1	AO2	AO3	Total
4. (a)	<p>Identify the longest Periodised cycle Tick one box only</p> <p>C - Macrocycle</p>	1			1
(b)	<p>Explain how periodisation of training is used by athletes to peak for a specific event</p> <p>Indicative content</p> <p>Macrocycle – often based on a training year</p> <p>Mesocycles – Macrocycle broken down into shorter meso cycle e.g. 3 months as this is the whole training cycle, it is broken down into separate periods</p> <p>Microcycles – Mesocycles are further sub-divided into smaller periods e.g. weekly or fortnightly</p> <p>Macrocycle split into:</p> <p>Preparatory Period</p> <p>Mesocycle 1</p> <p>General conditioning training</p> <ul style="list-style-type: none"> • High volume of lower intensity work • Builds up a good endurance base • Should develop aerobic and muscular endurance, strength and mobility • Will reduce injury during the season as body is well prepared. <p>Mesocycle 2</p> <p>Competition specific training</p> <ul style="list-style-type: none"> • Increased intensity of training from phase 1 • Strength and speed work / resistance training • Technique and tactics developed in preparation for the first day of the competitive season. 	2	4		6

Question	Mark Scheme	AO1	AO2	AO3	Total
	<p>Competitive Period</p> <p>Mesocycle 3</p> <ul style="list-style-type: none"> • Aiming to develop optimal competition performance. • Fitness and conditioning must be maintained alongside the development of competition-specific aspects of training. <p>Peaking</p> <ul style="list-style-type: none"> • Taper training – volume reduced between 30-50% • The volume of training decreases but intensity increases • Focus on short duration maximum intensity bouts of exercise replicating competition intensity <p>Include a band</p>				
(c)	<p>Discuss the benefits and potential problems associated with altitude training?</p> <p>1-2 marks basic discussion covering benefits and or potential problems associated with altitude training 3-4 marks developed discussion covering benefits and potential problems associated with altitude training</p> <p>Benefits</p> <ul style="list-style-type: none"> • Reduced concentration/partial pressure of oxygen at altitude • Increased red blood cells/haemoglobin • Erythropoietin/EPO • Enhanced oxygen carrying capacity (on return to sea level) • Improved endurance/stamina/aerobic capacity/VO_2 max <p>Problems</p> <ul style="list-style-type: none"> • Reduced pO_2 — training very hard • Loss of initial fitness/detraining effect • Increased lactate production/accumulation • Altitude sickness/weeks to acclimatise • Limited effectiveness – loses effect after 2-3 weeks • Has negative impact on 15% of population • Cost 			4	4

Question	Mark Scheme	AO1	AO2	AO3	Total
5. (a)	<p>Explain the potential problems associated with using tangible rewards as a way of motivating a sportsperson.</p> <p>1 mark basic explanation of the potential problem/s associated with using tangible rewards as a way of motivating a sportsperson 2-3 marks developed explanation of the potential problems associated with using tangible rewards as a way of motivating a sportsperson</p> <ul style="list-style-type: none"> • Too many rewards may lead to loss of intrinsic motivation/enjoyment • Become dependent on rewards e.g. Money. Too many/much rewards e.g. money/trophies begin to mean nothing, leading to loss in motivation • Removal of tangible reward leads to de-motivation • Increase pressure on sportsperson for success/cheating/deviance • Cause team cohesion problems/jealousy 		3		3

Question	Mark Scheme	AO1	AO2	AO3	Total
(b)	<p>Evaluate the drive and catastrophe theories, providing sporting examples to support your answer</p> <p>Indicative content</p> <p>Drive theory</p> <p>Description</p> <ul style="list-style-type: none"> • There is a linear relationship or positive correlation between arousal and performance • Between arousal and the dominant response/as arousal increases, performance increases • $B = HxD$ / Behaviour = Habit x Drive • A dominant response is more likely as arousal increases • Learned behaviours or stored motor programmes are dominant responses <p>Drive theory - Critical evaluation</p> <p>Positive aspects</p> <p>A. It explains high performance levels by top end athletes with high levels of arousal</p> <p>Analysis</p> <ul style="list-style-type: none"> • because their dominant response is (likely to be) correct • because experts can cope with higher levels of arousal / experts need to be challenged <p>e.g. Team GB performer at London 2012 Olympic Games</p> <p>B. It explains high levels of performance within dynamic, explosive or ballistic activities or skills</p> <p>Analysis</p> <ul style="list-style-type: none"> • Weightlifters getting psyched up before a major lift or Athletes using the crowd to boost performance <p>C. It helps teachers and coaches when coaching novices to understand that:</p> <p>Analysis</p> <ul style="list-style-type: none"> • Beginners need low arousal to learn • Beginners learn or perform badly with high arousal 	3		5	8

Question	Mark Scheme	AO1	AO2	AO3	Total
	<p>Negative aspects</p> <p>A. It fails to explain the decline in performance in many athletes with high levels of arousal</p> <p>B. It fails to explain how performers can produce high performance with low arousal</p> <p>C. It isn't applicable to novices because:</p> <ul style="list-style-type: none"> • Their dominant response (likely to be) incorrect • So poor performance when arousal is high <p>D. Linear relationship or positive correlation of arousal and performance rarely occur</p> <p>E. It doesn't take into account nature of task or personality or ability / potential</p> <p>Catastrophe Theory</p> <p>Description</p> <p>Theory is about the effects of different types of anxiety or arousal:</p> <ul style="list-style-type: none"> - Cognitive: the mind/mental anxiety/apprehension/worry - Somatic: the body/physiology <ul style="list-style-type: none"> • As (somatic) arousal increases, performance increases up to an optimum or midway point • Optimal arousal is where the potential to learn and perform well is maximised • If arousal continues to increase or is too high there is a sudden or extreme decline in performance or learning / performer 'goes over the edge' • If high cognitive arousal coincides with or interacts with high somatic anxiety, causing loss of control or coordination or concentration or decision-making skills <p>e.g. a golfer on the final green experiences high anxiety and misses an easy putt</p> <ul style="list-style-type: none"> • If arousal, then controlled performance can improve / the upward curve can be re-joined • If arousal continues to increase, then performance will continue to decrease 				

Question	Mark Scheme	AO1	AO2	AO3	Total
	<p>Catastrophe theory - evaluation</p> <p>Positive aspects</p> <ul style="list-style-type: none"> A. It is more realistic (than others) B. It explains why performance can suddenly or dramatically decline C. It is a multidimensional theory / it takes various factors into account (cognitive anxiety and somatic arousal) D. It explains how some performers can recover (as they re-join the upward curve of arousal) <p>Negative aspects</p> <ul style="list-style-type: none"> A. Some performers never experience a sudden decline (but slowly decline - as suggested by inverted U) B. It does not take task or skill level or personality into account C. It is not a proven theory / it is a theoretical idea 				

Band	AO2 3 marks	AO3 5 marks
3	3 marks Excellent knowledge and understanding of a both theories. Relevant examples are provided throughout.	5 marks Excellent evaluation of the positive and negative aspects of Drive and Catastrophe theories and how performance is affected by arousal levels. Some technical vocabulary used.
2	2 marks Good knowledge and understanding of a both theories. Relevant examples are provided on some occasions.	3-4 marks Good evaluation of the positive and negative aspects of Drive and Catastrophe theories and how performance is affected by arousal levels. Some technical vocabulary used.
1	1 mark Limited knowledge and understanding. There is a tendency to focus on one of the theories. Few examples are provided.	1-2 marks Limited evaluation of the positive and negative aspects of Drive and Catastrophe theories and how performance is affected by arousal levels. Limited technical vocabulary used.
0	0 marks No knowledge and understanding of motivational strategies.	0 marks No analysis of positive and negative aspects of motivational strategies.

Question	Mark Scheme	AO1	AO2	AO3	Total
6.	<p>Using Figure 4 as a guide, discuss the view that the English Public Schools were the main factor in the emergence of modern British sport.</p> <p>Indicative content</p> <p>Emergence of Modern Sport, while initially influenced by the Public Schools there were many other factors that have an impact. Nevertheless, sporting values, tradition, influence on sport and society are still in evidence today.</p> <p>Influence of Public schools</p> <ul style="list-style-type: none"> • Public school boys played games that were particular to their schools they would have taken the games and the rules with them to university. • Not being possible to play several different versions of games, the different versions would have been “rounded” off to establish one common or standard game and set of rules. The Oxbridge “Melting Pot” • Oxbridge were the first to make an attempt to codify sports, with formalised sets of rules established. • Universities often credited with establishing the early forms of the NGBs • Establishment of governing bodies led to regular competitions/leagues • Industrialists and employers developed factory teams/facilities • Clergy developed church clubs, teams, YMCA, Boys Brigade • Sport was played within army and therefore spread around British Empire and rest of the world • Ex-public school boys and university graduates travelled the British Empire and introduced new sports • Philanthropists/social reformers built facilities and encouraged social reform • Politicians introduced Acts of Parliament for public provision of facilities 	3	5	6	14

Question	Mark Scheme	AO1	AO2	AO3	Total
	<p>Original Sporting Values – Some still evident</p> <ul style="list-style-type: none"> • Sportsmanship and fair play • Respect for opponents • Follow rules both written and unwritten (etiquette) • Rely on ability (not drugs/cheating) • Taking part is more important than winning • Team loyalty more important than individual success • No money prizes, compete for glory and amateur values • Self-discipline with maximum commitment and effort <p>Rise of Professionalism</p> <ul style="list-style-type: none"> • Growth of towns and cities resulted in less space for fields etc for sport for the masses. Forced a change from participator base to spectator base/leading to a need for stadia • Spectators charged to watch/Commercial opportunity from numbers of spectators/entrepreneurs/business opportunity/factory team development/ticket revenue • Success and winning brought in more spectators therefore more revenue. • Improvements in transportation network meant more regular fixtures which facilitated payment of players • Factory owners begun developing teams • Culture of “compensating” better players to play replaced with open payment. Need to compensate workers for time lost playing sport Split in the Rugby codes creating RFL • Rationalised leisure time / Rise in personal income • Codification of sport brought about accepted rules that were understood/facilitated leagues/competitions/desire to win • Media created an affiliation with teams for spectators and increased the need to win. 				

Question	Mark Scheme	AO1	AO2	AO3	Total
	<p>Government and Politics and the Olympics</p> <ul style="list-style-type: none"> • Sport used as tool to promote country e.g. 2012 Olympics, Champions League Final in Wales, Tour De France in Depart in Yorkshire • Olympics being used as a political tool including boycotts e.g. 1980 Moscow (Government discouraged British athletes to go) • Promotion of national identity, leading to vast amounts of funding and research into specific Olympic sports e.g. UK Sports 'cut throat' policies towards funding sports that are expected to win Gold medals at games • All means a movement away from amateurism to professionalism <p>Commercialisation</p> <ul style="list-style-type: none"> • TV coverage, Sky, social media have all had a significant impact on sport at all levels • Commercialisation/media coverage leading to globalisation of sport and worldwide superstars e.g. Usain Bolt etc. • Vast amounts of money now associated with sport e.g. Football, Olympics, Golf • Win at all cost cultures through funding/sport science/nutrition/performance analysis etc. <p>Other UK examples of focus on winning.</p> <p>Lottery funding in UK has influenced many sports, particularly Olympic Sports it has had an impact on -</p> <ul style="list-style-type: none"> • Sports science/biomechanics/sports psychology/nutritional advice/ strength and conditioning • Sports medicine/physiotherapy • World Class Performance Pathway/Programme <p>Sport and Society – Linked to Public Schools</p> <ul style="list-style-type: none"> • Social class and money has a major impact on sport in relation to opportunity, provision and esteem • Women still not held in the same regard as men within sport • Still prejudice evident within sport linked to ethnic minorities, disability sport • Many Public-School sports associated with middle classes e.g. Cricket and tennis 				

Band	AO1 3 marks	AO2 5 marks	AO3 6 marks
3	<p>3 marks</p> <p>Excellent knowledge of the influence of Public schools, government and politics, commercialisation, Olympics and social factors, in relation to modern British sport.</p>	<p>5 marks</p> <p>Excellent application of the influence of Public schools, government and politics, commercialisation, Olympics and social factors, in relation to modern British sport.</p> <p>Appropriate examples are used across MOST areas.</p>	<p>5-6 marks</p> <p>Excellent discussion of the influence of Public schools, government and politics, commercialisation, Olympics and social factors, in relation to modern British sport throughout.</p> <p>There is a recognition of the impact of the Public Schools on modern sport but there is discussion around it being a significant factor, candidates may offer differing opinion related to the other factors.</p> <p>There are clear links and associations made between each of the areas highlighted in the diagram within the question</p> <p>The response is clearly expressed and shows an accurate use of terminology. Writing is very well structured using accurate grammar, punctuation and spelling.</p>
2	<p>2 marks</p> <p>Good knowledge of the influence of Public schools, government and politics, commercialisation, Olympics and social factors, in relation to modern British sport.</p>	<p>3-4 marks</p> <p>Good application of the influence of Public schools, government and politics, commercialisation, Olympics and social factors, in relation to modern British sport.</p> <p>Appropriate examples are used across SOME areas.</p>	<p>2-4 marks</p> <p>There is some recognition of the impact of the Public Schools on modern sport but discussion around it being a significant factor lacks depth. Some offer differing opinion and viewpoints related to the other factors.</p> <p>There are some links and associations made between each of the areas highlighted in the diagram within the question.</p> <p>The response is fairly well expressed and shows some accurate use of terminology. Writing is generally well-structured using grammar, punctuation and spelling.</p>
1	<p>1 mark</p> <p>Limited of the influence of Public schools, government and politics, commercialisation, Olympics and social factors, in relation to modern British sport.</p>	<p>1-2 marks</p> <p>Limited application of the influence of Public schools, government and politics, commercialisation, Olympics and social factors, in relation to modern British sport.</p> <p>Appropriate examples are used across a FEW areas.</p>	<p>1 mark</p> <p>There is a limited recognition and discussion of the impact of the Public Schools on modern British sport in relation to the other factors highlighted in the diagram</p> <p>There are limited links and associations made between each of the areas highlighted in the diagram within the question</p> <p>The response lacked accuracy in relation to the use of terminology. Written structure is weak, with some errors in grammar, punctuation and spelling.</p>
0	<p>0 marks</p> <p>Little or no knowledge demonstrated</p>	<p>0 marks</p> <p>No application of knowledge demonstrated</p>	<p>0 marks</p> <p>No discussion of how performance analysis is used.</p>

Band for 4. (b) Explain how periodisation of training is used by athletes to peak for a specific event

Band	AO1 2 marks	AO2 4 marks
		<p>4 marks</p> <p>Excellent explanation of how the cycles link together and link to peaking for performance.</p> <p>Relevant training examples are provided throughout.</p> <p>Some technical vocabulary used.</p>
2	<p>2 marks</p> <p>Good knowledge and understanding of micro, meso and macro cycles.</p>	<p>2-3 marks</p> <p>Good explanation of how the cycles link together and link to peaking for performance.</p> <p>Training examples are provided on some occasions.</p> <p>Some technical vocabulary used.</p> <p>Some technical vocabulary used.</p>
1	<p>1 mark</p> <p>Limited knowledge and understanding of the cycles.</p>	<p>1 mark</p> <p>Limited explanation of how the cycles link together and link to peaking for performance.</p> <p>Few relevant training examples are provided.</p> <p>Basic technical vocabulary used.</p>
0	<p>0 marks</p> <p>No knowledge and understanding of motivational strategies.</p>	<p>0 marks</p> <p>No analysis of positive and negative aspects of motivational strategies.</p>

UNIT 1: ASSESSMENT OBJECTIVES MARK ALLOCATIONS

	Q1	Q2	Q3	Q4	Q5	Q6	Total
AO1	5	4	6	3	3	3	24
AO2	2	3	7	4	3	5	24
AO3	4	5	0	4	5	6	24
Total	11	12	13	11	11	14	72