

# Physical Education

Advanced GCE A2 7875

Advanced Subsidiary GCE AS 3875

## Mark Schemes for the Units

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**January 2010**

**3875/7875/MS/10J**

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Mark schemes should be read in conjunction with the published question papers and the Report on the Examination.

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### MARK SCHEMES FOR THE UNITS

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# 2565 Physical Education: Historical, Comparative, Biomechanical and Sport Psychology Options

Question				Mark																		
<b>Section A Historical Studies in Physical Education</b>																						
1	(a)	(i)	<p>In pre-industrial Britain certain factors influenced popular recreation, such as:</p> <ul style="list-style-type: none"> <li>• a harsh lifestyle</li> <li>• widespread illiteracy</li> <li>• free time on Saints' days and annual holidays</li> <li>• two social classes: upper and lower (or gentry and peasants).</li> </ul> <p>How did each of these four factors influence the characteristics of popular recreation?</p> <p><b>4 marks in total</b></p>	<b>[4]</b>																		
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1	(a)	(ii)	<p><b>Give reasons why real tennis was exclusive to the upper class in pre-industrial Britain.</b></p> <p><b>4 marks in total:</b></p>	<b>[4]</b>																		
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1	(b)	(i)	<p><b>What were the aims of Dr Thomas Arnold (Headmaster of Rugby School 1828- 1842) and how did he go about achieving them?</b></p> <p><b>4 marks in total:</b> sub max 3 from each section</p>	[4]																												
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<p><b>Explain the emergence of Association Football from mob football with reference to working conditions, urban expansion and improved transport and communications.</b></p> <p><b>6 marks in total – levels mark scheme.</b></p>		<b>[6]</b>																																	
<p><b>Level 3: 5-6 marks</b></p> <ul style="list-style-type: none"> <li>A very good answer showing very good knowledge and understanding</li> <li>A number of well explained or developed points</li> <li>All three influences addressed.</li> </ul> <p><b>Level 2: 3-4 marks</b></p> <ul style="list-style-type: none"> <li>A satisfactory answer showing good knowledge and understanding</li> <li>Some points explained/developed</li> <li>All three of the influences may not have been addressed.</li> </ul> <p><b>Level 1: 1-2 marks</b></p> <ul style="list-style-type: none"> <li>A limited/superficial answer showing basic knowledge and understanding</li> <li>Answer lacks explanation/development</li> <li>Likely to be descriptive.</li> </ul> <p><b>Indicative content:</b></p> <table border="1"> <tbody> <tr> <td rowspan="6">Changing Working conditions</td> <td>1</td> <td>factory system/regular work times</td> </tr> <tr> <td>2</td> <td>reduction in working week/Sat 1/2 day/early closing movement</td> </tr> <tr> <td>3</td> <td>skilled manual labour first to gain Saturday 1/2 day</td> </tr> <tr> <td>4</td> <td>prof football a comparatively good job</td> </tr> <tr> <td>5</td> <td>workers had more money/enough to pay the Saturday gate money</td> </tr> <tr> <td>6</td> <td>'broken time' payments (led to professionalism)</td> </tr> <tr> <td rowspan="4">Urban expansion</td> <td>7</td> <td>limited or loss of space</td> </tr> <tr> <td>8</td> <td>specialist facilities developed/most towns built football grounds</td> </tr> <tr> <td>9</td> <td>(potential) business opportunities (eg running clubs) /appealed to middle classes</td> </tr> <tr> <td>10</td> <td>large numbers of people in one place/needed something to do/captive audience</td> </tr> <tr> <td rowspan="5">Transport and communication</td> <td>11</td> <td>trains/trams/buses/ allowed for easy travel to away games/national fixtures</td> </tr> <tr> <td>12</td> <td>allowed for regular fixtures</td> </tr> <tr> <td>13</td> <td>helped to develop spectatorism</td> </tr> <tr> <td>14</td> <td>lead to need for standardised rules/formation of NGB</td> </tr> <tr> <td>15</td> <td>lead to development of leagues/cups/competitions</td> </tr> </tbody> </table>		Changing Working conditions	1	factory system/regular work times	2	reduction in working week/Sat 1/2 day/early closing movement	3	skilled manual labour first to gain Saturday 1/2 day	4	prof football a comparatively good job	5	workers had more money/enough to pay the Saturday gate money	6	'broken time' payments (led to professionalism)	Urban expansion	7	limited or loss of space	8	specialist facilities developed/most towns built football grounds	9	(potential) business opportunities (eg running clubs) /appealed to middle classes	10	large numbers of people in one place/needed something to do/captive audience	Transport and communication	11	trains/trams/buses/ allowed for easy travel to away games/national fixtures	12	allowed for regular fixtures	13	helped to develop spectatorism	14	lead to need for standardised rules/formation of NGB	15	lead to development of leagues/cups/competitions	
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Question			Marks
2	(a)	(ii)	
<p><b>Explain how the Australian Institute of Sport (AIS) supports elite performers.</b></p> <p><b>4 marks from</b></p>			<b>[4]</b>
		1 (Centres of Excellence)	Elite performers are supported because Institutes are centres of sporting excellence/finishing schools
		2 (Sponsorship)	Institutes grant financial aid/give grants/sponsor athletes
		3 (Sports medicine)	Provide sports physiotherapy/medical services
		4 (Coaching)	High level coaching/high quality coaching/highly qualified coaches/improved coaching technology/on line coaching
		5 (Facilities)	Some Institutes have outstanding sports facilities
		6 (Resource)	Some Institutes are seen as a resource/resource rather than a facility
		7 (Competition)	Competitive opportunities/national/international competition
		8 (Athletic Career Education ACE)	Preparation for skills in other careers eg Athletic Career Education Programme/Career training outside of competitive sport



Question			Marks
2	(b)	(i)	
<p><b>Identify the factors that have promoted mass participation in sport and physical recreation in France</b></p> <p><b>3 marks for:</b></p>			<b>[3]</b>
		1 (Funding)	Government investment to improve sporting provision
		2 (Facilities)	Improved/high quality facilities/sports facilities provided throughout France/decentralisation
		3 (Joint provision)	Joint provision/shared facilities/school and community share
		4 (Sport for all policy)	Sport for all policy/sport pour tous promoted by the government/government plan to increase participation/ don't have to be good to participate is the philosophy of sport for all/sport for all is the alternative to elitism
		5 (School delivery/provision)	School has promoted mass participation through UNSS/Primary Sport Schools/Study sections/increased accessibility/schools have improved the profile of sport
		6 (New games)	New games have been encouraged/become popular/accessible to more people/new games like golf have become popular
		7 (Equality women)	Women's participation has increased/women made a target sports group
		8 (Equality disability)	Disability policy/Federation for less able promotes mass participation/Federation Handisports (FFH) for less able people promotes mass participation
		9 (Climate/Geography)	Mass participation is promoted because of diverse climate for sport/ space on the land

Question			Marks	
2	(b)	(ii)	<b>Explain the factors that have helped to improve the quality of Physical Education in France.</b>	<b>[4]</b>
			1 (Decentralisation)	Decentralisation has given control to schools/regions/schools have autonomy/can decide what to teach/quality has improved due to decentralisation/individual schools have more control
			2 (Agencies)	UNSS deliver sport to all children UNSS work with PE staff to deliver sport in school
			3 (Joint provision)	Facilities shared with community/facilities used also by public high standard of facilities because of public use
			4 (Initiatives)	Primary Sports Schools/specialist sports schools at primary level/Sport Study Sections
			5 (Equipment)	Improved quality of equipment in schools
			6 (Teacher qualification)	Improved teacher qualification/improved teaching standards have improved the Quality of PE/STAPS/
			7 (Exams)	CAPEPS for teachers/upgrade of teacher training
			8 (Inspection)	PE is part of the exam system/part of Baccalaureate exam
			9 (Attitude)	A positive change in attitude toward the subject has improved the quality
2	(c)		<b>Explain how the range of Summer Camps that are available to young people is a reflection of the socio-economic system of the U.S.A. Describe the benefits that a young person could gain by attending a summer camp in the USA.</b>	

Question			Marks
		<p><b>Levels marked</b></p> <p><b>Indicative content</b></p> <p><b>Level 3: 6-7 marks</b> Candidates will provide an explanation as to how the range of Summer Camps reflects the socio-economic system of the USA. At the top of this level a detailed description of benefits will be given.</p> <p><b>Level 2: 3-5 marks</b> Candidates will provide a satisfactory explanation as to how the range of Summer Camps reflects the socio-economic system of the USA. Responses will give descriptions of the benefits of the summer camp. These may not be detailed. At the top of this level however, some detail is expected.</p> <p><b>Level 1: 1-2 marks</b> Explanation and description is attempted at the top of this level but detail will be limited.</p>	

Question		Marks
	Socio-economic	
	1. Choice of Camp	Choice of camp is based on money/wealth of the family
	2. Expense	Expensive camps are better than cheap ones/money buys a quality system) experience
	3. Sponsorship	State sponsored camps for poor/less well off families
	4. Business providers	Sponsored camps reflect size/wealth of the company/the wealth of the system) business providing the sponsorship
	5. Commercial Camps	Commercial camps are expensive/Commercial camps only for wealthy children
	Benefits	
	6. (Outdoor adventure/activities)	Outdoor experiences/adventure opportunities
	7. (Sport camps)	Sports camps provide opportunity to improve skills/expertise/improve fitness
	8. (Self improvement)	Self improvement camps/ improve image/weight loss camps/or equivalent
	9. (Socialisation)	Opportunity to meet people/to make friends
	10. (Self-realisation)	Opportunity for self-realisation/finding out about yourself
	11. (Challenge)	Activities provide challenge/excitement
	12. (Residential)	A residential experience/opportunity to live away from home/achieve independence
	13. (Patriotism)	Develop love of country/ develop patriotism/patriotic rituals/spirit of frontierism
	14. (Environmental Skills)	Learn about environment/safety/map reading/camp craft/or other suitable eggs
	15. (Enrichment)	Enriching/life enriching/improve quality of life/preparation for life/leisure

### Quality of Language

**Three marks are available for the quality of Written Communication.**

**High:** A well reasoned, well ordered developmental explanation.  
In clear, concise and continuous prose.  
Sentences and paragraphs follow on from one another smoothly and logically.  
There will be **few, if any, errors** of grammar, punctuation and spelling.

**3 marks**

**Middle:** Reasoned statements employing **sound** use of language.  
Candidates express straightforward ideas clearly.  
Sentences and paragraphs may not always be connected.  
There may be **some errors** of grammar, punctuation and spelling, but not such as to suggest a weakness in these areas.

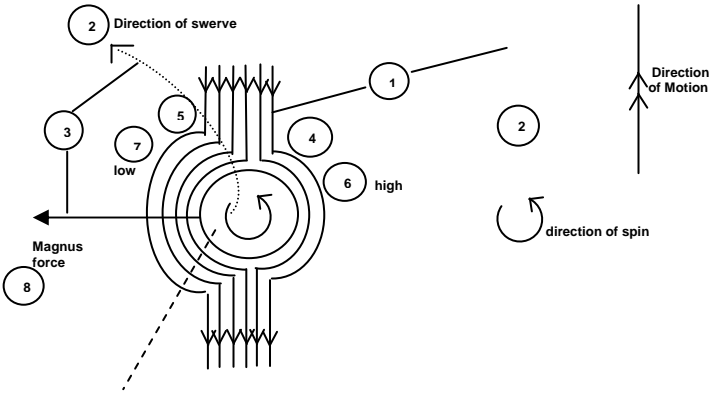
**2 marks**

**Low:** An attempt at explanation with limited quality of language.  
The candidate expresses simple ideas clearly but may be imprecise and awkward in dealing with complex or subtle concepts.  
**Errors in grammar**, punctuation and spelling may be **noticeable** and **intrusive** suggesting weaknesses in these areas.

**1 mark**

Question			Marks
3	(a)	(i)	<p><b>Sketch and label a diagram showing the forces acting on the ball at the moment of contact. Show how you could work out the resultant force acting on the ball.</b></p> <p><b>5 marks in total</b></p> <p><b>[5]</b></p>
			<p>submax 2:            1 (Action) force 1 F (from edge of ball)            2 Weight 1 W (from CM)</p>
			<p>submax 3:            3 Force and weight from same point            4 Parallelogram Law (dotted lines)            5 Resultant 1 Net force</p>
3	(a)	(ii)	<p><b>Using Newton's laws of motion, explain the effect of the resultant force acting on the ball.</b></p> <p><b>4 marks in total from:</b></p> <p><b>[4]</b></p>
			<p>1 mark max for identifying two of Newton's laws</p>
			<p>(Points must relate to correct law)            1 (Newton 1) – The ball remains stationary until it is kicked/force applied            2 (Newton 2) – The ball's acceleration/rate of change in momentum is proportional to the size of the (resultant) force acting upon it/larger the force the further/faster it will go            3 The ball will accelerate in the direction at the (resultant) force            4 (Newton 3) – The foot applies a force to the ball, therefore the ball applies an equal and opposite force to the foot</p>
3	(b)	(i)	<p><b>Define the term impulse. Using the information on the graph, estimate the value of the impulse of force acting on the ball during the execution of the corner kick.</b></p> <p><b>3 marks in total</b></p> <p><b>[3]</b></p>
			<p>1 Impulse = Force x time 1 Ft / Change in momentum/ <math>m\mathbf{v} - m\mathbf{u}</math>            2 Impulse = Area under Ft curve                = <math>\frac{1}{2} \times 0.1 \times 200</math>            3 = 10Ns (Units must be correct)</p>

Question			Marks								
3	(b)	(ii)									
		<p>If the mass of the football is 0.4kg calculate the outgoing velocity. of the ball.</p> <p><b>2 marks in total</b></p>	[2]								
		<p>1 <math>Ft = mv - mu</math> / change in momentum/  <math>10 = mv /</math>  <math>v = \frac{10}{0.4}</math></p> <p>2 <math>v = 25 \text{ ms}^{-1}</math> (units must be correct)</p>									
3	(c)	<p>When taking a corner kick players may apply sidespin which makes the ball swerve. Draw a diagram showing airflow patterns around the ball during flight after it has been struck with sides pin. Explain how sidespin causes the ball to swerve.</p>									
		<b>Levels Marked Question:</b>									
		<table border="1" style="width: 100%;"> <thead> <tr> <th colspan="2" style="text-align: center;"><b>Biomechanics part (c)</b></th> </tr> </thead> <tbody> <tr> <td style="width: 30%;"><b>Level 3 (6-7 marks)</b></td> <td>Candidates will give a detailed diagram which offers a full explanation of the effect of sidespin on the flight path of the ball. Explanation may not be on the diagram but will refer to both air flow and explanation of swerve.</td> </tr> <tr> <td><b>Level 2 (3-5 marks)</b></td> <td>The diagram will be mainly accurate and although explanation is attempted it may lack clarity and some coherence.</td> </tr> <tr> <td><b>Level 1 (1-2 marks)</b></td> <td>The diagram will be basic with important features missing or inaccurate. Little attempt to explain how sidespin causes the ball to swerve.</td> </tr> </tbody> </table>	<b>Biomechanics part (c)</b>		<b>Level 3 (6-7 marks)</b>	Candidates will give a detailed diagram which offers a full explanation of the effect of sidespin on the flight path of the ball. Explanation may not be on the diagram but will refer to both air flow and explanation of swerve.	<b>Level 2 (3-5 marks)</b>	The diagram will be mainly accurate and although explanation is attempted it may lack clarity and some coherence.	<b>Level 1 (1-2 marks)</b>	The diagram will be basic with important features missing or inaccurate. Little attempt to explain how sidespin causes the ball to swerve.	
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		<p>(Answers can be either on diagram or in explanation)  Indicative content. . (look for opposites)</p> <ol style="list-style-type: none"> <li>1 Airflow line arrows opposite direction of motion</li> <li>2 Direction of spin in relation to direction of swerve</li> <li>3 Direction of swerve (must relate to direction of magnus)</li> <li>4 Wide airflow lines on side away from direction of swerve</li> <li>5 Narrow airflow lines on side of direction of swerve</li> <li>6 High pressure where airflow lines are wider</li> <li>7 Low pressure where airflow lines are narrower</li> <li>8 Direction of force at right angle to direction of travel</li> <li>9 Force is called Magnus effect (must be from high to low)</li> <li>10 Air travels further on low-pressure side of ball</li> <li>11 Air travels faster on low-pressure side of ball</li> <li>12 Pressure gradient from high to low (causes Magnus effect)</li> </ol>									

Question	Marks
<b>Viewed from above</b>	
	 <p>The diagram illustrates the Magnus effect on a spinning ball. The ball is shown with a circular cross-section and a central vertical axis. Arrows indicate the ball is moving upwards, labeled 'Direction of Motion'. A curved arrow indicates the ball is spinning clockwise, labeled 'direction of spin'. Air flow is represented by arrows: on the left side, air is deflected downwards, labeled 'low' (7); on the right side, air is deflected upwards, labeled 'high' (6). A dashed line indicates the 'Direction of swerve' (2) to the left. A horizontal arrow labeled 'Magnus force' (8) points to the left. A vertical arrow labeled '1' points upwards from the top of the ball. A circular arrow labeled '2' indicates the spin direction. A circular arrow labeled '3' indicates the swerve direction. A circular arrow labeled '4' indicates the spin direction. A circular arrow labeled '5' indicates the spin direction. A circular arrow labeled '6' indicates the spin direction. A circular arrow labeled '7' indicates the spin direction. A circular arrow labeled '8' indicates the spin direction.</p>
<b>Total: [21 marks]</b>	

Question			Marks
4	(a)	<b>Positive attitudes to participation and performance are seen as an important influence on behaviour in sport</b>	
4	(a) (i)	<b>What are attitudes and how could they influence behaviour in sport?</b>	<b>[4]</b>
		<b>1 mark for:</b> 1 They are predispositions towards an attitude object/Mixture of cognitive/beliefs/ <b>and</b> affective/feelings <b>and</b> behaviours/actions	
		<b>3 marks for three from:</b> 2 Positive attitudes (can) lead to more determined/positive behaviour /persistence in participation 3 Negative attitudes (can) lead to less determination/negative (or examples of) behaviour/giving up easily 4 If you believe in the value of something you are more likely to be positive/if you do not believe then you are more likely to be negative 5 If you have desirable affective responses/emotions/you like what you do/see then you are more likely to have a positive/approach behaviour/if you have negative emotions more likely to have negative/dysfunctional behaviour 6 Influenced more by role models' attitudes/perceived attitudes/those that you observe have high status then more likely to copy their attitudes 7 Attitudes are affected by outcomes and the better the outcome the more positive the attitude/if successful/have positive outcomes more likely to have positive attitudes and therefore positive/approach behaviours	
4	(a) (ii)	<b>Using examples from sport in your answer, explain how negative attitudes are changed to positive attitudes.</b>	<b>[4]</b>
		(only two marks available if no sports example)	
		<b>4 marks for:</b> 1 Cognitive dissonance may change attitudes 2 Change one element of the triadic model and other elements will change to gain consonance 3 Use of significant others/role models to persuade/persuasive communication 4 Influence beliefs/cognitive aspect to show how undesirable 5 Influence emotions/affective aspect to show how undesirable 6 Influence behaviour directly/use of praise positive reinforcement/use of punishment or negative reinforcement for undesirable behaviour/use the law/litigation to punish	



Question			Marks
4	(b)	(i)	<p><b>Why is goal setting relevant to managing anxiety in sport?</b></p> <p><b>[4]</b></p>
			<p><b>4 marks for:</b></p> <ol style="list-style-type: none"> <li>1 Can give focus/target that gives sense of direction</li> <li>2 Lowers arousal/calms you down</li> <li>3 Sharing goal setting can give shared responsibility/can lower anxiety</li> <li>4 Goal setting can include goals that are attainable/success more likely and therefore lower anxiety</li> <li>5 Measured goals can give evidence of improvement/gives reward/positive reinforcement that can improve confidence/lower anxiety</li> <li>6 Goal setting that is timed correctly/appropriately can give sense of control/steps towards success that can control anxiety</li> <li>7 Exciting/inspiring goal setting can motivate and enthuse/encourage/enjoyable which may control anxiety</li> <li>8 Recorded goals attained gives sense of achievement/progress which controls anxiety</li> <li>9 (Negative view) poor/irrelevant/inappropriate goal setting can lead to high anxiety</li> </ol>
4	(b)	(ii)	<p><b>A long term goal in sport might be to win a medal in the 2012 Olympics.</b></p> <p><b>Using practical examples, explain how you would use the setting of short and intermediate goals to realise this long term goal. Refer to process, performance and product goals in your answer.</b></p> <p><b>[6]</b></p>
			<p><b>Levels Marked</b></p> <p><b>Level 3: 5-6 marks</b> Candidate identifies and explains fully all types of goal setting and with relevant practical examples. Answer linked to Olympic goal.</p> <p><b>Level 2: 3-4 marks</b> Candidate identifies and describes with only little explanation most of the different types of goal setting. With some relevant practical examples. Some reference to Olympic goal.</p> <p><b>Level 1: 1-2 marks</b> Candidate identifies with very little description at least one method with little or no relevant practical examples. Candidate limits their answers to SMART principles.</p>

Question			Marks
		<p><b>Indicative content</b></p> <p>1 Short term goals give smaller chunks to attain</p> <p>2 Short – term may be over weeks/months</p> <p>3 Intermediate goals are over longer/months/years</p> <p>4 Intermediate goals may be about fitness/technique/strategies</p> <p>5 Intermediate can build on short term goals</p> <p>6 (process) concerned with technique/style</p> <p>7 (process) directs attention/gives information/targets to be more successful/be able to progress with more effective techniques/improves confidence</p> <p>8 (performance) comparison with previous attempts/judged against other performances</p> <p>9 (performance) improves times/results a stepping stone to improve outcome/gives feeling of achievement/satisfaction</p> <p>10 (product/outcome) focus on end result/to win overall/concerned with outcome of competition</p> <p>11 (product) gives motivating long term goal/can be used to aim even higher in the future/leads to progression/used as overall aim/may be just out of reach to motivate</p> <p>12 All goal setting can raise self confidence</p> <p>13 Use of SMARTER principles</p>	
4	(c)	<p><b>Those who watch sport often affect the performance of the participants. Explain the ‘homefield advantage phenomenon’ in sport.</b></p>	3
		<p><b>3 marks for:</b></p> <p>1 Playing at home or familiar environment leads to better performance</p> <p>2 Leads to higher motivation/encouraging</p> <p>3 Those that are ‘away’ participants expect to do less well</p> <p>4 Those at home expect to achieve/do well</p> <p>5 Familiarity of home leads to more predictable environment/fewer surprises/feel more safe/secure</p> <p>6 Drive higher therefore positive/dominant response more likely to occur (Zajonc)</p>	
			<b>Total 21 marks</b>

# 2566 Exercise and Sport Physiology and the Integration of Knowledge of Principles and Concepts Across Different Areas of Physical Education

Question Mark

## Section A Exercise and Sport Physiology

1 (a) A performer carries out a number of fitness tests. Table 1 gives the results of two of these tests.

1 (a) (i) Identify test A and fitness component B. [2]

**2 marks in total**

(test A) NB: Any suitable test that gives a "predicted" VO<sub>2</sub> max score, so direct gas analysis would be incorrect.

1. (NCF) multi stage fitness test/(any) step test/Cooper/12 minute run test/PWC170 test  
(fitness component B)
2. Muscular/strength endurance

- 1 (a) (ii) Explain three physiological factors related to the heart and/or skeletal muscle that enable the performer to score so highly on test A. [3]

**3 marks in total**

Answers MUST be explained

Both heart and muscles must be addressed  
submax 2 for either

Reason	Explanation
<b>HEART</b>	
1. large/strong heart/hypertrophy	able to contract with more force/contractility of myocardium improved/greater efficiency at pumping blood/O <sub>2</sub> to the muscles
2. low resting heart rate/bradycardia	greater efficiency at pumping blood/oxygen to the working muscles
3. larger stroke volume/(maximal) cardiac output	more blood/oxygen pumped <u>per beat</u> into the systemic circulatory system/per unit of time
<b>SKELETAL MUSCLE</b>	
4. large myoglobin stores	more efficient transport of oxygen (from the blood capillaries to the mitochondria)
5. many mitochondria	allows greater use of aerobic respiration/less time spent on anaerobic respiration
6. high enzyme activity	increases rate of glycogen/fat breakdown (making aerobic system more efficient)
7. large stores glycogen/fats	more fuel available to break down for ATP/resynthesis/energy
8. large number of slow twitch/type I muscle fibres	More suited to aerobic/endurance work

<b>Question</b>		<b>Mark</b>
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1	(b) Describe the physiological implications of both a warm up and a cool down on skeletal muscle.	[4]
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**4 marks in total**

Both warm up and cool down must be addressed  
submax 3 for either

(warm up) sub max 3

1. reduces risk of injury to muscles/connective tissue
2. increases extensibility/elasticity of muscles/ligaments/tendons/connective tissue
3. increases (core body) temperature/increased enzyme activity
4. reduces blood viscosity/more O<sub>2</sub>/blood
5. improves efficiency of muscular contractions/improved coordination of antagonistic pairs
6. increases speed of nerve impulses from CNS to muscle
7. increases speed of muscular contractions
8. increases force of muscular contractions

(cool down) sub max 3

9. keeps muscle capillaries dilated/increases/maintains amount of oxygen/blood reaching muscles
10. increases rate of removal of lactic acid/carbon dioxide/waste products
11. restores the correct pH of muscles
12. reduces the risk of DOMS/muscle soreness

1	(c) Describe proprioceptive neuromuscular facilitation (PNF) flexibility training and explain why PNF is considered to be such an effective method of stretching.	[6]
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**6 marks in total**

**(description of PNF) submax 3**

1. form of passive stretching
2. joint taken to a position just beyond its point of resistance
3. performs an isometric contraction (for 6-10 seconds)
4. muscle is relaxed and stretched again

**(explanation) submax 4**

5. (isometric contraction) inhibits the stretch reflex
6. muscle spindle no longer detects a stretch in muscle
7. so message to CNS is stopped allowing muscle to stretch further
8. Golgi tendon detects increase in muscle tension (during isometric contraction)
9. message sent to CNS
10. CNS sends message back causing muscle to relax/tension reduced
11. allowing muscle to stretch further
12. message to antagonistic muscle telling it to contract

**Total Marks [15]**

**Question** **Mark**

**2 (a) (Application of Anatomical and Physiological Knowledge to Improve Performance)**

**The position of a performer's centre of mass is a fundamental concept to understanding balance and stability in sport.**

**What is meant by the term centre of mass?**

**Explain scientific factors including changes in the position of a performer's centre of mass can affect a performer's stability.**

**Centre of mass**

**(Sub max 7)**

**(definition) (sub sub max 1)**

1. the point at which the weight of the body appears to act/the point at which the body is balanced in all directions

**(and stability) (sub sub max 6)**

2. position of centre of mass can make a performer stable or unstable
3. a low centre of mass increases stability
4. a high centre of mass decreases stability
5. more stable bodies require a larger force to make them unstable (accept opposite)
6. size of base of support also affects stability
7. a large base of support increases stability
8. a small base of support decreases stability
9. position of the line of gravity also affects stability
10. if the line of gravity falls close to the centre of the base of the support the body is very stable
11. as line of gravity gets closer to the edge of base of support, stability decreases
12. if line of gravity falls outside base of support, body becomes unstable

## Question

## Mark

**Tissue respiration is the exchange of gases between blood in the capillaries and muscle cells.**

**Explain how the exchange of oxygen is achieved between blood and muscle tissue at rest.**

**Explain why this process is increased during exercise.**

**Tissue respiration**

**(Sub max 8)**

**(at rest) (Sub sub max 5)**

13. oxygenated blood reaches the capillaries in the muscles
14. blood the capillaries has a high (partial pressure of) oxygen/high ppO<sub>2</sub>
15. because it has come from the lungs (via the heart)
16. the muscle tissue has a low (partial pressure of) oxygen/low ppO<sub>2</sub>
17. because it has used its oxygen for energy production / muscular contraction
18. gases will always move from areas of high pressure to areas of low pressure/down the diffusion gradient
19. diffusion occurs/oxygen passes/diffuses from the blood into the muscle (tissue)
20. (haemoglobin in the) blood releases its oxygen to myoglobin the muscle tissue
21. myoglobin has a greater affinity for oxygen than haemoglobin
22. myoglobin transports the oxygen within the muscle (tissue to the mitochondria)

**(during exercise gaseous exchange increases because)**

**(Sub sub max 5)**

23. there is a greater dissociation of oxygen from haemoglobin to myoglobin/the oxygen dissociation curve shifts to the right/suitable graph
24. (due to) an increase in body temperature
25. (due to) a steeper diffusion gradient
26. (due to) a decrease in (partial pressure of) oxygen/ppO<sub>2</sub> within the muscle (tissue)
27. (due to) an increase in (partial pressure of) carbon dioxide/ppCO<sub>2</sub> within the muscle (cell)
28. (due to) an increase in acidity/lower pH (in the blood and muscles)/ the Bohr effect
29. causing an increased supply of oxygen to the working muscles

**Total Knowledge Marks [13]**

Question Mark

- 2 (b) **What are the characteristics of intrinsic and extrinsic methods of motivation?  
How would you use these methods to promote effective learning of movement skills?**

**(characteristics of intrinsic and extrinsic methods of motivation)**

**(Sub max 8 marks)**

**(Sub sub max of 5 marks)**

(Characteristics of intrinsic)

1. Drive from within/internal the performer.
2. Feelings of (emotional) enjoyment/satisfaction/feeling good/satisfaction/personal bests/pride.
3. Muscular sensuousness/enjoying the feeling of movement/kinaesthesia.

(Characteristics of extrinsic)

4. Drive by external processes/(tangible) rewards.
5. Comparisons with others/competition against others.
6. Pleasing others/caring about the evaluation of others.

**(Sub sub max of 5 marks)**

(Using intrinsic for effective learning)

7. Encouragement will motivate to learn/will strive to do better.
8. Use (own) goal setting to ensure success/goals that are achievable.
9. Measurement of performance/goals to show achievement.
10. Overuse of extrinsic motivation/rewards can lead to decrease in intrinsic motivation/not using extrinsic methods/rewards so as to not lose intrinsic motivation.
11. Coach making training and competition enjoyable/reducing importance/focus of competition/event.

(Using extrinsic for effective learning)

12. Regular use of tangible rewards/prizes.
13. Use of meaningful praise/positive reinforcement.
14. Give challenging goals (by others) with recognisable success criteria/SMART

**Selective attention is an integral part of processing information to perform a movement skill. Why is selective attention so essential for optimum performance?**

**5 marks max from:**

15. prevents cognitive overload/not too much information to deal with
16. by filtering information to the short-term memory/STM has limited capacity.
17. controls arousal/other stimuli do not over-arouse.
18. Keeps distractions to a minimum/not put off by other stimuli
19. Helps concentration/narrows attention/focus
20. To make relevant stimuli more vivid/more aware of important cues
21. Important for quick reaction time/quick responses/to improve anticipation

**Maximum of 13 Knowledge Marks**



## Question

## Mark

## 2 (c) (Exercise and Sport Physiology)

Endurance performers rely heavily on A TP re-synthesis via the aerobic system.

Outline the physiological processes that occur during Kreb's cycle (the second stage of the aerobic system). Discuss the advantages and disadvantages of the aerobic system.

**Kreb's cycle**  
(Sub max 4)

1. pyruvic acid converted to acetyl CoA
2. combines with oxaloacetic acid
3. produces citric acid
4. hydrogen released/reduction occurs
5. carbon dioxide given off
6. exothermic reaction (that releases energy)
7. to resynthesise 2 A TP

**Advantages and Disadvantages**  
(Sub max 4)

**(Advantages)**

8. high quantities of A TP are resynthesised
9. (presence of oxygen allows for) full breakdown of glycogen
10. (high levels of oxygen) allow for breakdown of fats
11. fats are the most efficient energy fuel
12. no fatiguing by-products

**(Disadvantages)**

13. time delay (before sufficient oxygen available)/slow process
14. complex series of reactions
15. can only be used at low/medium exercise intensity
16. breakdown of fats requires very large quantities of oxygen
17. 15% more than for the breakdown of glycogen

## Question

## Mark

**RhEPO (recombinant erythropoietin) is an ergogenic aid that gives an unfair advantage to an endurance performer. Describe the effects of using RhEPO.**

**RhEPO (Sub max 7)**

18. stimulates the production of red blood cells
19. increases the oxygen carrying capacity of the blood/more oxygen to working muscles
20. increases endurance capability of performer/delays fatigue/lactic threshold/OBLA
21. increases  $V_{O2}$  max
22. increases blood pressure
23. increases blood viscosity/risk of blood clotting
24. increases strain on the heart/risk heart failure
25. decreases heart rate that leads to reduced stroke volume/cardiac output/less oxygen reaching the tissues
26. decreases natural production of EPO/body producing less red blood cells (in the long term)
27. once in the body nobody can predict how much red blood cell production will occur/can overload the CV system

**Total Knowledge Marks [13]**

Question

Mark

## APPENDIX Suggested links - not intended to be exhaustive

AS → AS	A2
<b>Centre of mass and stability</b> <ul style="list-style-type: none"> <li>strengthening exercise</li> <li>Newton's laws</li> <li>motion</li> <li>force</li> </ul>	<b>ATP re-synthesis</b> <b>recovery</b> <b>aerobic capacity</b> <b>types of strength</b> <b>ergogenic aids</b>
<b>Tissue respiration</b> <ul style="list-style-type: none"> <li>systemic circulation</li> <li>vascular shunt mechanism</li> <li>oxygen transport</li> <li>effect of altitude</li> </ul>	

A2 → A2	AS
<b>Aerobic ATP re-synthesis</b> <ul style="list-style-type: none"> <li>recovery</li> <li>principles of training</li> <li>physiological adaptations to aerobic training</li> <li>ergogenic aids</li> </ul>	<b>muscle fibre types</b> <b>effect of warm up on skeletal muscle heart rate response to exercise</b> <b>respiratory response to exercise</b>
<b>Ergogenic aids   RHEPO</b> <ul style="list-style-type: none"> <li>ATP re-synthesis</li> <li>recovery rates</li> <li>principles of training</li> <li>other relevant ergogenic aids</li> </ul>	

Question	Mark
2 (d) (Biochemical Analysis of human movement)	

Using Newton's Laws of Motion, explain the effects of force acting on a projectile just prior to flight

Other than the size of the applied force, identify and explain additional factors that can affect the horizontal distance achieved by a projectile. [13]

**(Newton's Laws)**

**(Sub max of 3 marks from) (must link effect to a practical example)**

1. (Newton 1) An object will remain at rest (or move with constant velocity) unless acted upon by an unbalanced force.
2. (Newton 2) The acceleration/rate of change of momentum of an object is directly proportional to the force applied to it and
3. takes place in the same direction as the force.
4. (Newton 3) For every action there is an equal and opposite reaction.

(Factors affecting distance travelled)

**(Sub max of 10 marks for) (Sub max 3 for identification only)**

5. (Identification) Speed the ball leaves the club/speed of release.
6. (Explanation) The greater the speed of release the greater the distance travelled.
7. (Identification) Angle of release.
8. (Explanation) Optimum angle for greatest distance =  $45^\circ$  (if landing area is – same-height-as-release-height]
9. (Explanation) Above or below  $45^\circ$  reduces distances.
10. (Identification) Height of release.
11. (Explanation) If landing area is lower then angle of release needs to be lower to maximise distance.
12. (Explanation) If landing area is higher then angle of release needs to be higher to maximise distance.
13. (Identification) Follow through/time club is the contact with ball.
14. (Explanation) The longer the force is applied the greater the impulse/(change in) momentum.
15. (Explanation) Therefore the greater the outgoing, velocity/speed of the ball.
16. (Identification) Amount/type of spin applied to the ball/Magnus effect.
17. (Explanation) Backspin will lengthen flight path increase distance travelled.
18. (Explanation) Topspin/side spin will shorten flight path/decrease distance travelled.
19. (Explanation) Sidespin will reduce displacement.
20. (Identification) Shape of the object.
21. (Explanation) Aerofoil shape can create lift.
22. (Explanation) Bernoulli / lift force can increase distance travelled.
23. (Identification) Wind/air resistance.
24. (Explanation) Greater air resistance can reduce distance travelled
25. (Explanation) although some objects can be thrown further into a slight headwind. (eg javelin)

**Total Marks [13]**

Question

Mark

**Theoretical links (T1)****1st part:**

- Free body diagrams
- Levers and their effect on force applied.

**2nd part:**

- Parabolic and non-parabolic flight paths.
- Vectors in terms of distance and displacement.
- Free body diagrams of objects during flight.

**Theoretical links (T2) with A&P:**

- Movement analysis of any sporting examples they use.

<b>Question</b>		<b>Mark</b>
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- 2 (e) **Describe the three main theories of personality in sport.**  
**(Sub max 6 marks)**  
**(Sub sub max 2 marks for each theory)**

**(Trait)**

1. Trait/genetic approach shows that we are born with our personality characteristics.
2. Traits are enduring/we express our personalities consistently.
3. Type A trait shows high levels of personal anxiety/impatient/highly competitive/hostile/cannot relax/link to coronary heart disease.
4. Type B shows low levels of personal anxiety/patient/relaxed.

**(Interactionist/interactional)**

5. (influence of environment) Interactionist approach involves traits combining/interacting with the environment/ $B=f(P, E)$ .
6. (cue) The environment triggers/acts as a cue (for the appearance of a trait)
7. (Hollander – role) Social environment affects role-related behaviours/how we behave in a particular situation.
8. (Hollander – involves trait) Core characteristics that is enduring/semi-permanent.
9. (traits may dominate) If situational factors are not strong then traits dominate behaviour.

**(Social Learning)**

10. (copy) Social learning states that we learn/copy our personalities from others.
11. (role models) If significant other involved/role model then personality characteristics more likely to be copied/imitated/personality characteristics likely to be retained if significant others reinforce behaviour.
12. (Characteristics of sig. others) More likely to copy relevant models/similar to us/friendly/powerful/consistent role models.
13. (early influences) Early learning from parents/carers can affect the characteristics we copy.
14. (fit in to society) Characteristics are copied if it enables us to adopt the norms and values of our culture/socialisation has taken place/to fit in/to be accepted by others/into a group.

## Question

## Mark

**How would a coach raise the confidence level of a performer in sport?**

**(Sub max 4 marks)**

15. Performance accomplishments/give success/give achievable goals
16. Vicarious experiences/show others performing well/use of role models/demonstrations
17. Verbal persuasion/encouragement/positive reinforcement/praise/positive feedback/praise
18. Control of arousal/calm them down/cognitive/somatic relaxation
19. Mental rehearsal/mental practice/self belief
20. Level of sport-specific state confidence should be controlled (Vealey)
21. Give satisfaction/positive attribution to raise confidence/retribution
22. Be non-competitive with skill learning

**Explain three methods that can be used to eliminate aggressive tendencies in sport.**

**(Sub max 3 marks)**

**3 marks for 3 from**

23. Cognitive techniques/lower psychological arousal
24. Count to ten/mantra/concentrate on repeating words/phrases/positive self talk (to lower arousal)/replace aggressive cue.
25. Imagery/imagine calm/control/quiet place (lower arousal)/replace cue
26. Mental rehearsal of activity/imagining ones own actual movement (to lower arousal)
27. Forgetting/distancing from aggressive cues/walking away/removing yourself from situation/negative thought stopping (to lower arousal)
28. Displace feelings/play harder/take it out on someone/something else/channel aggression
29. Take up an activity, which will release tension/aggression/take an interest/be motivated by non-aggression/reward non-aggression
30. Reasoning with ones self that aggression is wrong/remembering consequences/recognising implications of aggression/knowing the punishment/rational thinking/reinforce non-aggression role models
31. Somatic techniques/lower somatic/physiological arousal
32. Relaxation/progressive relaxation techniques to lower arousal
33. Use biofeedback/information on physiological arousal is recognised and dealt with.
34. Yoga/e.g. (to lower arousal)
35. Give role/(position of) responsibility to make performer more responsible/accountable.

**Maximum of 13 Knowledge Marks**

Question

Mark

**Suggested Links AS to A2**

The pacing continuum – Confidence

Characteristics of intrinsic and extrinsic methods of motivation – Confidence/attitudes/achievement motivation/leadership/social facilitation/attribution.

Selective attention – Mental preparation/self

confidence/concentration/emotional control/coping with an audience.

**A2 to AS**

Main theories of personality in sport – Feedback/selective attention/arousal/motivation/observational learning/reinforcement.

Confidence levels of a performer in sport – Feedback/phases of learning/motor control/motivation/arousal/learning theories/reinforcement/transfer

practice conditions.

Methods that can be used to eliminate aggressive tendencies in sport – Operant conditioning/reinforcement/feedback/arousal.



Question

Mark

## Section B Question 3 (Socio-cultural focus)

## Part One (Contemporary Studies in Physical Education)

- 3 (a) Discrimination in sport can affect minority groups such as the elderly and those with disabilities.

Explain possible problems facing elderly people in terms of their participation in physical recreation.

1 mark for each response up to a maximum of 13  
(Sub max 8)

1. (money)	limited finances/on pensions/low disposable income/no longer earning/cost
2. (transport)	may not have car/difficulty in getting public transport.
3. (fitness)	may be more restricted physically than in younger years/less flexible/not wishing to play contact or other games.
4. (esteem)	poor self image/self belief/believe they are not longer suited to physical activity/put off by perception that physical activity is for young people/friends don't participate
5. role models)	Insufficient role models to encourage participation.
6. (lack of choice)	local centres offering inappropriate or unappealing options/insufficient choice
7. (instructors)	Instructors/coaches unclear of wishes and abilities of the clients/not specialised in dealing with older people
8. (school)	poor experience (at school and not wishing to give physical activity another go).
9. (facilities)	lack of specialist/adapted/ facilities or equipment/under-funding
10. (Promotion)	lack of media focus/advertisement/information
11. (Health)	poor health/need to seek specialist advice

Question

Mark

**Describe what is being done or could be done to give people with disabilities who want to take part in physical recreation better opportunity and provision.**

**(Sub max 8):**

12. (funding)	overcome financial disadvantage/appreciation of income levels/investment in provision for people with disabilities/increased funding to disability sports associations/eg disability Sport England
13. (strategic)	provide adequate facilities at local level to participate/regional level for excellence
14. (access)	access has been improved/(Disabled Person's Act 1981)/Local Authorities must conform to minimum access requirements/consideration of toilet and changing facilities/ramps/lifts/wide car-parking bays/suitable lift control buttons etc.
15. (attitudes)	change attitudes/celebrate differences/acknowledge abilities in modified sports/assumptions/smash myths/break stereotypes/promote positive image of disabled performers/participants
16. (training/coaches)	provide specialist training for coaches/continued work to increase the number of coaches with disabilities
17. media	media (must continue) to focus on minority group sport
18. adaptation & modification	games/sports/facilities adapted and modified to suit people with specific disabilities/eg basketball/tennis, use of larger, smaller, lighter equipment/increase team numbers
19. (integration/inclusion)	integrate at school PE level/local community level/ continue to integrate at elite level/inclusive rather than segregated provision
20. (positive discrimination)	disability only sessions eg wheelchair basketball
21. (Big sports events)	the Paralympics raises awareness of elite sport for people with disabilities/system which groups competitors with particular functional abilities to allow fair competition.
22. (role models)	Promotion of role models
23. (campaigns)	eg Every Body Active/Pro-Motion
24. (liaison)	liaison/co-operation between organisations/National Governing Bodies/Local authorities/disability sports or organisations/media should work together
25. (awareness)	providers/organisers need to be aware of specific challenges facing disabled people

**Total Knowledge Marks[13]**

Question

Mark

Part Two

## 3 (b) (Historical Studies in Physical Education)

In the late 19th and early 20th centuries the objectives, content and methodology of Elementary School syllabuses for physical activity changed considerably.

Describe:

The Model Course, which was imposed on State schools in 1902.  
A typical Physical Education lesson based on the publications Moving and Growing (1952) and Planning the Programme (1954).

1 mark for each response up to a maximum of 13.

(Sub max 5)

1902 Model Course		
<b>(Objectives)</b>	1.	Fitness for military service/war
	2.	Training ready for handling weapons
	3.	Discipline
<b>(Content)</b>	4.	Military drill/marching/weapons training/staves/brush handles
	5.	Deep breathing
	<b>(Methodology)</b>	6.
7.		In ranks
8.		Group response/no individuality

Sub max 5

1950s (Moving & Growing & Planning the Programme)		
<b>(Objectives)</b>	9.	Development of physical/social/cognitive skills/holistic approach
	10.	To give variety of experiences
	11.	Enjoyment
	12.	Personal satisfaction/personal development/feeling of achievement
<b>(Content)</b>	13.	Involvement by everyone
	14.	Gymnastics/dance/games skills/swimming/movement to music/agility exercise
	15.	Apparatus
	16.	Progressive/theme work/sequence work
<b>(Methodology)</b>	17.	Child-centred/individual interpretation of tasks
	18.	Problem solving/creative/discovery/exploration

Question

Mark

**Briefly outline why you think a junior school Physical Education lesson of today is somewhat different to one from the 1950s.**

**(Sub max 5)**

19.	<b>(facilities)</b>	improved/more/different facilities
20.	<b>(equipment)</b>	more child friendly/colourful/appropriate equipment
21.	<b>(initiatives)</b>	initiatives in primary schools/(eg TOP Sport PESSCLS strategy/ SSCOs
22.	<b>(accountability)</b>	emphasis on accountability in schools today.
23.	<b>(National curriculum)</b>	change due to introduction of national curriculum
24.	<b>(excellence/balanced lifestyles)</b>	(possible) pressure from need to promote excellence or balanced active healthy lifestyles or to counter childhood obesity
25.	<b>(values/opps)</b>	'new' values associated with PE/new emphasis on equal opportunities.

**Possible links within AS**

1. All minority groups face similar problems
2. Increased provision of: media coverage/facilities/funding/campaigns will benefit all minority groups
3. Discrimination is a societal phenomenon – a reflection of society
4. It affects all levels of performance from mass participation through to excellence

**Possible links within A2**

1. Compare /contrast with public school opportunities and provision.
2. War influenced both 02 and 54 syllabuses.
3. 1950s 'freedom' for girls compare with pop rec. freedom for lower class and restrictions on middle class girls during nineteenth century.

**As to A2 and A2 to AS**

1. Reference: Opportunity, provision, esteem including:  
[money/funding [facilities/equipment [coaching/ teaching  
[confidence/respect.

## Question

## Mark

- 3 (c) Describe the factors that have helped to improve sport and Physical Education in Australian Schools.

(Sub max 6)

1. (SEPEP).	Sport Education and Physical Education Project (SEPEP)/100 minutes per week for each of PE and sport /loose framework as a teaching guide.
2. (Structure)	Intra and Inter school games/structured competition
3. (Electives).	A broad range of electives/options to cater for all interests/needs
4. (Fundamental Skills Programme)	Basic skills make up Primary programme/a skilful child is more likely to continue participation/Fundamental Skills Programme.
5. (PASE)	PASE is a professional development programme for teachers.
6. (Sports linkage).	Liaisons between club and school/sharing facilities/talented children are passed on to clubs.
7. (Exemplary Schools)	Exemplary schools share good practice/Schools with good programmes are funded to share good practice
8. (Sports/Talent Search)	Sports/Talent Search allows students to select sports which suit them best by accessing database.
9. (Awards)	State awards/Blues/de Coubertin for excellence/participation/fair play.
10. (ACE).	Athletic Career Education programme (ACE) star performers used as role models/Sports Person in Schools Project
11. (Sports leaders)	Sports leaders help delivery/older pupils help deliver to youngsters
12. (Teacher Games)	Teacher games sets example to children/teacher participation sets example
13. (Fitness initiatives)	Australian Fitness Education Award/Blue Earth initiatives.

Question

Mark

**Compare the aims, funding and organisation of sport in UK Sports Colleges with that in High Schools in the USA.**  
**Sub Max 8 Marks**

	<b>UK Sports Colleges</b>	<b>USA High Schools</b>
<b>Aims</b>		
14. (Standards)	Raise standards of achievement in PE/sport	Raise standards of achievement in sport
15. (Inclusivity)	Includes children across the ability	Selects talented children to play sport/High School is Centre of Sports Excellence
16. (Community)	Community provision/sharing facilities	No evidence of sharing facilities/community is involved as spectators/sponsors
17. (Partnerships)	Links/share good practice with other school	In competition with other schools
18. (Progression)	Provide a structure through which young people can progress to careers in PE/sport	A programme of excellence/an aim is to prepare athlete for scholarship/professional sport
19. (Ethos/ participation)	Participation/Sport is for all	Lombardian/sport for elite
20. (Club links)	Club link strategy	No such links
21. (National initiatives)	Involved in national initiatives/eg step into sport	Operates as autonomous/independent body/High schools work on their own.
22. (Teacher/ coach)	Teacher in charge of curriculum delivery	Coach/Athletic Director in charge of sports delivery
23. (Specification)	To teach skills to all abilities	To develop skills of elite performers
24. (Quality)	To provide high quality teaching/facilities	Coaching standards/facilities are of high quality
25. (Specification)	To teach a broad range of sports	To coach/specialise in one sport

## Question

## Mark

<b>Funding</b>		
26. (Funding)	Schools raise (initial) money from private sector/ sponsorship	Funding for elite sport is provided by school/alumni/sponsorship /commercial enterprise.
27. (Funding)	Additional funding from the Department for Education and skills (DfES)/government/ DCSF	No direct government funding
28. (Development plan)	Funding granted on receipt/acceptance of Development Plan	No such external development plan
<b>Organisation</b>		
29. (Aim of teacher/Coach)	To develop participation/ enjoyment/develop learning environment	To win
30. (Contract teacher/coach)	Permanent contract	Coach 'Hire & Fire' contract
31. (Image)	Does not copy the professional sport scene	Reflects the professional sports scene
32. (Structure)	Well structured eg Programme Development Managers/School Sports Coordinators/ Primary Link teachers	Well structured eg Head Coach Athletic director/ Supporters group chairman

Question

Mark

**Examples of T1 Links****Australian Schools**

Reference to cultural factors e.g. tradition of sport, political involvement and climate.

Reference to 'Sports Obsession'

Demographical factors eg small population.

Government involvement in promoting SEPEP

Progression to high level sport eg AIS and work of ASC

AIS Education Programme (ACE) and schools link eg Sports Person in Schools

Project Mass participation and ASC Social issues in sport eg Equality

**Example of T1 Links**

<b>UK Sports Colleges</b>	<b>USA High Schools</b>
Role of Youth Sport Trust	Reference to Little League sport
Schemes linked to YST eg The Tops Programmes	Links to Scholarship and Pro-Draft opportunities
Drawbacks of Sports College organisation/ethos	School PE and practical assessment methods
Specific linkage schemes eg Physical Education	Crisis of school PE curriculum & strategies to
School Sport and Clubs Links Strategy (PESSCL)	regenerate PE eg Physical Education for Progress (PEP)
Developing excellence UKSI and progression pathways	Limited Mass Participation policy
The work of Sportscoach UK	Professional sport and commercialism/entertainment
Sport for All policy & work of Sport England	Professional sport and sensationalism/violence
Special Interest Groups eg Disability Sport England	Link to American cultures eg opportunity & American Dream Reference to accountability and Capitalism



## Banded criteria for synoptic assessment

16 - 19	<p>A comprehensive response:</p> <ul style="list-style-type: none"> <li>• <b>Comprehensive knowledge has been consistently and clearly linked to practical performance.</b></li> <li>• <b>Relevant links and connections between and within study areas have been made successfully.</b></li> <li>• <b>Responses at the top of this level will demonstrate sound analytical and evaluative skills.</b></li> <li>• There is evidence of well-argued, independent opinion and judgements supported by sound examples.</li> <li>• Technical and specialist vocabulary is used accurately.</li> <li>• The Quality of Written Communication is generally fluent with few errors.</li> </ul>
11 - 15	<p>A competent answer:</p> <ul style="list-style-type: none"> <li>• Substantial knowledge has been linked to practical performance and the majority of examples will be well considered.</li> <li>• Relevant links between and within subject areas have been made with some success.</li> <li>• Evidence of sound analysis is apparent.</li> <li>• Independent opinions and judgements will be present but towards the bottom of this level, not always supported by sound examples.</li> <li>• Technical and specialist vocabulary is used with some accuracy.</li> <li>• The Quality of Written Communication is generally fluent with few errors.</li> </ul>
6 - 10	<p>A straightforward answer:</p> <ul style="list-style-type: none"> <li>• <b>There will be evidence that some knowledge has been linked to practical performance. Connections are made between and within study areas but at the bottom of this level, links will be tenuous.</b></li> <li>• Analysis will be limited and restricted to the obvious.</li> <li>• Opinion and judgement will be unsupported.</li> <li>• Technical and specialist vocabulary is used with limited success.</li> <li>• The Quality of Written Communication lacks fluency and there will be errors.</li> </ul>
0 - 5	<p>A limited answer:</p> <ul style="list-style-type: none"> <li>• There will be limited knowledge with few links to practical performance.</li> <li>• Connections within and between study areas rarely made.</li> <li>• Opinion and judgement almost entirely absent.</li> <li>• <b>Little or no attempt to use technical and specialist vocabulary at the bottom of this level.</b></li> <li>• <b>Errors in Quality of Written Communication will be intrusive.</b></li> </ul>

# Grade Thresholds

Advanced GCE Physical Education 3875 7875  
January 2010 Examination Series

## Unit Threshold Marks

Unit		Maximum Mark	A	B	C	D	E	U
2565	Raw	45	30	27	24	21	18	0
	UMS	90	72	63	54	45	36	0
2566	Raw	60	44	40	36	32	28	0
	UMS	120	96	84	72	60	48	0

## Specification Aggregation Results

Overall threshold marks in UMS (ie after conversion of raw marks to uniform marks)

	Maximum Mark	A	B	C	D	E	U
<b>3875</b>	300	240	210	180	150	120	0
<b>7875</b>	600	480	420	360	300	240	0

The cumulative percentage of candidates awarded each grade was as follows:

	A	B	C	D	E	U	Total Number of Candidates
<b>3875</b>	0	4.35	34.78	56.52	95.65	100	23
<b>7875</b>	6.44	28.22	57.67	86.20	97.85	100	326

## 349 candidates aggregated this series

For a description of how UMS marks are calculated see:  
[http://www.ocr.org.uk/learners/ums\\_results.html](http://www.ocr.org.uk/learners/ums_results.html)

Statistics are correct at the time of publication.

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**Cambridge**  
**CB1 2EU**

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