

Physical Education

Advanced GCE A2 7875

Advanced Subsidiary GCE AS 3875

Mark Schemes for the Units

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Advanced Subsidiary GCE Physical Education (3875)

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2562 The Application of Physiological and Psychological Knowledge to Improve Performance

Section A

Application of Anatomical and Physiological Knowledge to Improve Performance

1 (a) Fig 1 shows an athlete in a 100m hurdles race.

(i) Use your anatomical and physiological knowledge to complete the joint analysis table below for the athlete's left trailing leg. [5]

Joint	Joint Type	Articulating Bones	Movement	Agonist	Antagonist
Joint 1 Athlete's Left Knee	1 Hinge	Femur and Tibia	2 Flexion	3 Biceps Femoris/ Semimembranosus/ Semitendonosus	Rectus Femoris
Joint 2 Athlete's Left Ankle	Hinge	4 Tibia, Fibula, Talus	Dorsi Flexion	Tibialis Anterior	5 Gastrocnemius/ Soleus

(ii) Give one exercise that could be used to strengthen the rectus femoris and one exercise to strengthen the tibialis anterior.

1 Rectus Femoris - Leg extension/Squats/Leg Press [1]

2 Tibialis Anterior - Toe Raises [1]

(iii) Identify two structures of a synovial joint and describe the role of one during physical performance [3]

3 marks in total (structure/role of joint)

2 marks sub max for structure

Structure	Role
1 Ligaments	2 Hold joint in place/join bone to bone
3 Cartilage (hyaline/articular)	4 Prevents wear and tear/friction/absorb compression
5 Muscles/tendon	6 Provide strength or support/allow greater range of movement
7 Synovial fluid	8 Lubricates/nourishes cartilage/rids joint of waste debris
9 Pads of fat	10 Absorbs shock/protect from wear and tear
11 Bursae (sacs containing synovial fluid)	12 Helps reduce friction
13 Joint capsule/fibrous capsule	14 Stabilise joint
15 Synovial membrane	16 Secretes synovial fluid
17 Menisci	18 Improves fit of the joint

- (b) It is recommended that an athlete completes a cool down after exercise.

Describe three ways in which an active cool down affects the vascular system of the performer. [3]

- 1 Prevention of blood pooling
- 2 Keeps capillaries/arterioles dilated/maintains vasodilation
- 3 Maintains venous return/blood flow
- 4 Removal of waste products/lactic acid/repay Oxygen debt
- 5 Maintains blood pressure
- 6 Keeps metabolic activity elevated
- 7 Maintains skeletal muscle pump/respiratory pump

- (c) Explain, using a practical example from sport, how either size or direction of force can affect performance in PE and sport.

Explanation [1]

- 1 Size of force affects how far/fast an object travels
- 2 Direction of force affects the direction/trajectory of the object/distance a flighted object will travel/if direction of force outside centre of gravity spin will occur/if direction of force is applied through centre of gravity it will cause linear motion
- 3 Larger size of force causes object to accelerate faster/smaller size of force causes object to accelerate slower
- 4 Larger size of force causes object to decelerate faster/smaller size of force causes object to decelerate slower
- 5 Size of force can change an objects shape more/less

Example [1]

A snooker player must apply the correct size of force to the cue ball to ensure the colour ball reaches the pocket.

A golfer must ensure the ball is struck in the correct direction from the tee to hit the green/avoid hazards.

[Total marks: 15]

2 (a) Fig 2 shows lung volumes of a performer at rest.

(i) Identify the two lung volumes marked A and B. [2]

1 A - Inspiratory Reserve Volume

2 B - Expiratory Reserve Volume

(ii) Describe tidal volume. Explain what you would expect to happen to tidal volume during exercise.

Description

3 The volume of air inspired or expired per breath [1]

4 It would increase [1]

(b) Fig 3 shows the dissociation curve. During exercise this curve moves to the right.

What physiological factors cause the curve in Fig. 3 to move. [4]

1 Increase in blood/muscle/body temperature

2 Decrease in partial pressure of oxygen within the muscle (cell)

3 Increase in oxygen diffusion gradient

4 Increase in partial pressure of carbon dioxide within the muscle (cell)

5 Increase in acidity of blood/carbonic acid/lactic acid

6 Lower blood pH

7 Bohr Effect

(c) Describe how intrinsic control affects the cardiac output of a performer during exercise. [4]

1 Increase in venous return

2 Causing more blood to enter the right atrium

3 Which causes the SA node to increase rate of firing

4 Therefore HR/cardiac output increases

5 More blood enters the left ventricle

6 Which causes the left ventricle to stretch/Starling's Law

7 This in turn increases stroke volume

8 An increase in temperature causes acceleration of nerve impulses to the heart

(d) Describe how the conduction system of the heart control the cardiac cycle. [3]

1 An impulse is sent from the SA node/pacemaker of the heart

2 The impulse is received by the AV node

3 This causes atrial systole/contraction/depolarization

4 The impulse then travels down the bundle of His

5 To the Purkinje Fibres

6 This causes ventricular systole/contraction/depolarization

[Total marks: 15]

Section B

Acquiring and Performing Movement Skills

- 3 (a) (i) A skilful performance is fluent and follows a technical model. Identify two other characteristics of skilful performance and use a practical example for one of them.

3 marks in total
Sub max 2 if no example

1	Aesthetically please/pleasing to the eye	eg gymnast performs a graceful floor routine
2	Learned/practiced	eg tennis player is taught a serve then practices it
3	Efficient/effortless	eg swimmer moves smoothly through the water
4	Goal directed/pre-determined goal	eg golfer knows where to hit the ball to make it fade

- (ii) Use a practical example to explain what is meant by an open skill

3 marks in total
Sub max 2 if no example

- 1 Affected by the environment/unpredictable/constantly changing environment
- 2 Performer must adapt to changing environment/performer is reactive
- 3 Skill is externally paced
- 4 Skill is mainly perceptual/involves decision making

- (b) (i) What is selective attention and why is it important to the short term memory?

3 marks in total

What is selective attention?
Sub max 2 marks

- 1 Focus on relevant detail
- 2 Filter for information (into STM)
- 3 Irrelevant information ignored

Why is selective attention important to STM?
Sub max 1 mark

- 4 STM limited in capacity/can only store 5-9 items/only stores for up to 30 secs

- (ii) **What strategies can be used to ensure that information is retained and easily retrieved from the long term memory.**

3 marks in total

- 1 Practice/rehearse/repeat/over learn the skill
- 2 Intensify the stimulus/make stimulus more noticeable
- 3 Intensify the emotional experience (eg enjoyable/painful)
- 4 Link to past experience/associate with familiar information
- 5 Information must be relevant/meaningful
- 6 Reward/give positive reinforcement
- 7 Chunking
- 8 Keep information simple
- 9 Imagery

- (c) **Use a practical example to explain the psychological refractory period.**

3 marks in total

Sub max 2 if no example

- 1 (Stimulus 1/S1) First stimulus identified/detected
- 2 (Response 1/R1) Response to first stimulus
- 3 (Stimulus 2/S2) Second stimulus received
- 4 (Response 2/R2) Second response initiated
- 5 Delay in second response caused by bottleneck in brain/brain can only deal with one stimulus at once/brain is a single organ channel/first response not cleared before second occurs/the delay caused by being able to process only one piece of information at a time makes reaction time longer

[Total marks: 15]

- 4 (a) **Use practical examples to explain both intrinsic and extrinsic feedback.
4 marks in total
Sub max (1 for intrinsic - 1 for extrinsic) if no examples**

(Intrinsic)

- 1 Feedback or feeling from within the performer/internal/kinaesthetic/ proprioceptive/ knowledge of performance
- 2 Suitable example eg gymnast feels legs are not straight in handstand

(Extrinsic)

- 3 External information about the performance/information gained from environment or others/knowledge of results
- 4 Suitable example eg seeing ball go into the net/coach informing about technique

- (b) **Use a practical example and Fig ? to explain the inverted U theory of arousal.
3 marks in total
2 marks max if no example**

- 1 As the performer's arousal level increases.....
- 2 Performance increases as arousal increases but.....
- 3 To an optimum point at moderate arousal level
- 4 Beyond/below moderate arousal performance will deteriorate

- (c) (i) **What is a motor programme?
2 marks in total**

- 1 Plan of a whole skill/pattern of movement/series of generalised movements
- 2 Stored in the long term memory
- 3 Can be retrieved by one decision
- 4 Adjusted/modified/updated each time skill is performed
- 5 Made up of sub routines
- 6 (Sub routines) run in sequential/hierarchical order

- (ii) **Use a practical example to explain what is meant by open loop motor control.
3 marks in total
2 marks max if no example**

- 1 Appropriate example/eg golf drive/sprint start in athletics
- 2 Applied to fast/ballistic movements
- 3 (Feedback available) but not able to be acted upon during skill
- 4 Changes to (executive) programme can only occur after completion of skill/Knowledge of results/knowledge of performance used to adjust skill next time
- 5 Level one subconscious control/no attention to plan after start of action

(iii) Use a practical example to explain what is meant by the initial conditions and the response specifications of schema.

2 marks in total - must use a practical example

- 1 (Initial conditions) pre-performance information about environment and the performer from previous experiences eg outfielder in cricket would have information available about how far away the wicket is situated
- 2 (Response specifications) pre-performance information available from past experiences about what is required in present situation eg a long throw will be needed to reach the wicket keeper

(iv) Why is variability of practice an important part of schema?

1 mark in total

- 1 Different experiences in practice situations will build up/extend the schema/schema will be able to be used in many situations/greater transfer of skills

[Total marks: 15]

2563 Contemporary Studies In Physical Education

1 (a) (i) Identify three characteristics of play, outdoor education and sport. [9]

9 marks in total

Sub max three from any one section

Mark only first three responses for each concept

Characteristics of Play

1	(time)	time decided by participants / no set time / no time limits
2	(spontaneous)	spontaneous / spur of the moment / unplanned
3	(who?)	children / childlike / adults
4	(organisation)	simple or low organisation or structure / basic equipment / no set numbers
5	(space)	space or boundaries decided by participants / no set space or pitch / no space limits / no boundaries
6	(option)	optional / choice / voluntary
7	(enjoyable)	enjoyable / fun / self-fulfilling / intrinsic value
8	(rules)	flexible or relaxed or few rules / rules by agreement / no set rules
9	(non-serious)	non-serious / non-productive / result or outcome not important

Characteristics of Outdoor Education

10	(PE)	part of PE / learning / part of National Curriculum/ specialist staff
11	(children)	school children / young people
12	(risk & safety)	risk and safety / real or perceived risk / risk / sense of adventure
13	(unpredictable)	unpredictable / changing environment
14	(natural envt)	in <u>natural environment</u>
15	(artificial facilities)	using artificial facilities

Characteristics of Sport

16	(rules)	rules / NGBs / organised / structured / officials / sophisticated / codified
17	(competitive)	competitive / winners and losers / leagues / competitions
18	(commitment)	commitment / dedication / determination / effort / endeavour / training
19	(skill)	(performer shows...) skill / prowess / fitness / tactics (performer is...) high level / elite / international
20	(time)	strict time limits / set time / time constraints
21	(intrinsic)	intrinsic rewards/satisfaction/personal fulfilment
22	(extrinsic)	extrinsic rewards / winning or outcome important / for job / professional / for money / serious
23	(behaviour)	sportsmanship / fair play / gamesmanship
24	(chance)	with element of chance
25	(equipment)	specialist equipment or specialist kit
26	(space)	set space or place / fixed boundaries / purpose built or specialist facilities
27	(▲)	sponsorship / media coverage / commercialism / spectatorism

- (ii) Give reasons for differences in the quality of Physical Education between schools. [4]

4 marks in total
(Accept "funding" if applied)

1	(sports college)	sports college
2	(staffing)	quality or number of staff / variety of specialist skills within PE department / involvement of non-PE specialist teachers or coaches
3	(facilities)	quality or amount of facilities or equipment / access or transport to facilities or equipment / eg if swimming pool or natural environment nearby
4	(time)	time available / whether schools stick to minimum identified by NC
5	(range/exams)	whether school offers examinations in PE or other related courses / range or choice of activities
6	(children)	attitudes of pupils towards PE / impact of class sizes on lessons or learning
7	(attitudes)	attitudes towards or status of or tradition of PE / attitude of Head Teacher / how highly PE is valued
8	(extra-curricular)	extra-curricular or competitive opportunities
9	(links)	links / partnerships with clubs or other relevant organisation(s) eg sports colleges or UKSI / SSCOs / TOPSport / TOPS Programme

- (b) (i) Identify two further characteristics of ethnic sports in the UK other than tourism and isolation. [2]

2 marks in total:

1	(traditional)	traditional / re-creation or celebration of past / part of heritage or folklore
2	(local)	local / unique to area
3	(social)	social or community occasions
4	(festival)	festival / celebrations
5	(occasional)	occasional / annual
6	(ritual)	ritual / ceremonial / religious
7	(rowdy)	Rowdy

- (ii) Give reasons why sporting success is good for emergent countries such as Kenya and how sporting success is achieved. [6]

6 marks total: sub max 4 from one section:

Why sporting success is good for emergent countries		
1	(stability)	it can stabilise a government
2	(health)	it can help develop a healthy or health conscious society
3	(nation building)	it can promote nation building or the shop-window effect / it can increase national pride or status or respect / it can boost image of country or government / it puts country on world stage / it increases tourism or wealth
4	(appeasement)	it can appease or stabilise the people or country / it can promote a 'feel good factor' or encourage social control
5	(integration)	it can integrate the people or tribes / it can bring the nation or tribes together
6	(defence)	it can improve defence

How is sporting success achieved?		
7	(high profile)	'high profile' or Olympic sports chosen
8	(low tech /physique)	low tech or simple or natural or cheap sports chosen / sport(s) chosen that suit physique or lifestyle or environment
9	(role models)	role models
10	(selection)	by: selection of limited range of sports / by focusing on top performers / elitism
11	(unequal funding)	by: unequal funding or disproportionate funding / funding limited to one or two sports or top performers

2 (a) (i) What is meant by each of the following: [3]

3 marks total – one for each of: sub max of one from each section

(discrimination)		
1	(unfairness / prejudice)	unfair treatment or unequal treatment / acting on or showing prejudice / bias or favouritism / accept relevant example of unfair treatment
(stereotype)		
2	(image)	a simplified or standardised image or view / an idea held by one person or group about another / based on attitudes / leads to myths
(a special interest group)		
3	(organisation)	organisation that encourage participation or opportunity or esteem by certain people / WSF/ DSE

(ii) Account for comparatively low levels of participation in physical recreation and sport by people on low incomes. [3]

3 marks total:

Insufficient funds for:		
1	(fees)	entrance fees / joining fees / club membership
2	(equipment)	kit / equipment
3	(coaching)	coaching
4	(transport)	transport
5	(childcare)	childcare costs
Also not enough:		
6	(time)	may not have time / shift work / long working hours
7	(self esteem)	self esteem / self confidence / lower levels of self esteem associated with those of lower socio-economic status / culture surrounding some facilities or activities may put others off
8	(health/fitness)	lower levels of health or fitness associated with those of lower socio-economic status

(iii) How can school Physical Education departments increase the interest and participation of girls in physical activity? [4]

4 marks total:

1	(K/E/F)	ensure kit or equipment or facilities are 'suitable'
2	(choice / variety)	give choice of activities / give varied programme / cater for wide range of interests or levels of competition
3	(role models)	bring in role models or female sporting celebrities/ sports person in school / emphasise achievements of females
4	(visits)	organise visits or tours / eg Wimbledon
5	(links)	form links with clubs or local specialist sports colleges
6	(balance)	value both participation and excellence
7	(staffing)	have adequate number of staff or well qualified staff / more female staff
8	(status / attitudes / rewards)	ensure PE has high status in school / support from management/ ensure positive attitudes towards equal opportunities / rewards for participation

9	(special events)	organise special or promotional events / eg taster days / initiatives and ideas to promote participation / inter-form activities
10	(extra - curricular)	provide an extra curricular programme
11	(girls only)	'girls only' sessions or activities

(b) (i) What does the Women's Sport Foundation do to increase participation by girls and women? [2]

2 marks total:

1	(equality)	promotes equality
2	(campaigns)	campaigns / promotional events / provides information
3	(influence)	tries to influence national or regional government or sports councils / tries to change policies
4	(leaders)	encourages more women into positions of responsibility/ eg coaching
5	(profile)	raises the profile of women's sport or role models / tries to get more media coverage

(ii) What are Sport England's main objectives and how does it attempt to achieve them? [3]

3 marks total: sub max of 2 from one section

Main objectives		
1	(participation)	to increase participation
2	(SSS)	' <u>start, stay and succeed</u> ' / ' <u>more people, more places, more medals</u> '
3	(nation)	to make England an active nation
4	(government)	to deliver government's sporting objectives / support government targets
How Sport England tries to achieve them		
5	(funding)	provides or distributes funding or lottery funding or government funding
6	(projects / campaigns)	accept any relevant project or campaign eg (Get) Active, Sporting Champions, Sport Action Zones
7	(sharing)	shares best practice/works with other organisations or NGBs
8	(information)	provides information / has website

- (c) Explain the causes of violent behaviour by both players and spectators in high level sport. [6]

Levels mark scheme:

Level 3: 5-6 marks

- answers at this level are excellent or very good
- a well developed answer showing very good knowledge and understanding
- answers is well balanced (both parts of question have been addressed)
- at the top of this level points are very well explained
- at the bottom of this level points are well explained

Level 2: 3-4 marks

- answers in this level are good or satisfactory
- a developed answer showing sound knowledge and understanding
- both parts of the question have been answered but not necessarily equally balanced
- at the top of this level some points are explained
- at the bottom of this level there have been attempts at explanation but overall answers are descriptive

Level 1: 1-2 marks

- answers in this level are weak or very weak
- an answer with little development and limited knowledge and understanding
- only one part of the question has been answered
- bullet points might have been used throughout – little or no explanation of points

Indicative content: (answers are likely to include some of the following):

Players		
1	(frustration)	frustration with match officials or score or result or own performance / controversial decisions
2	(emotional intensity)	emotional intensity / pre-match hype or psyche-up / importance of result / local derby / team rivalry / pressure
3	(abuse)	chanting or abuse from crowd
4	(punishment)	lack of suitable punishment or deterrent
5	(provocation)	provocation by opponent / 'cheating' by opponents / gamesmanship
6	(weapons)	'weapons' /eg sticks or clubs or bats
7	(nature of game)	nature of game/ if body checking or contact part of game eg ice hockey or rugby
8	(kit)	if 'game' involves kit or equipment that 'de-humanises' opponents or officially protects them
Spectators		
9	(frustration)	frustration with match officials or score or result or players
10	(emotional intensity)	pre-match hype / media hype / emotional intensity / importance of event / pressure
11	(abuse)	racism / provocation / verbal abuse
12	(punishment)	lack of suitable punishment or deterrent
13	(alcohol)	alcohol / drugs
14	(religion/tradition)	local derby / religion / traditional rivalry / team loyalty
15	(numbers)	over crowding / large numbers of fans / poor provision for spectators / poor policing or stewarding
16	(hooligans)	hooligans at football / some 'fans' attend to cause trouble / organised violence
17	(mass culture)	mass culture situation / peer pressure / tribal nature of event / loss of individual identity in crowd / diminished responsibility in crowd
18	(pitch violence)	violence or behaviour on pitch copied

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**

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

Section A: Historical Studies In Physical Education.				
1	(a)	(i)	How did the development of the railways help the growth of Association Football? [2] 2 marks for 2 of:	
			1	(teams) teams could travel further in a shorter time/more distant away fixtures possible
			2	(supporters) supporters could travel to watch their team/supporters clubs grew
			3	(competitions) Leagues/cups/fixtures/competitions developed/regular/regional
			4	(rules) rules standardised/FA formed (1863)/teams had to play to the same rules
			5	(social) the train journey became a popular / enjoyable social occasion
		(ii)	What factors other than improved transport influenced the emergence of rational sport after 1850? [5] 5 marks for 5 of:	
			1	revolutions Industrial/urban revolution/s
			2	time increased free time/Saturday half day/shorter working week/regular work patterns/more energy
			3	space 1 Less space led to pitches/stadia
			4	space 2 more space/public parks
			5	middle class more middle class/middle class influence making it more civilised
			6	rights/reform/law and order factory acts improved workers' rights/reform/improved working conditions/increased government support of working class/control of wagering
			7	patronage industrial patronage/provision of facilities at factory/specialist facilities built/factory teams/excursion trips to seaside
			8	income/health less poverty/earnings improved/enough for 'gate' money/improved health
			9	literacy improved literacy/newspapers/specialist sporting press/improved business administration
			10	emancipation more freedom for women to participate/impact of lawn tennis
			11	schools/unis impact of ex-public school boys or ex-university boys
			12	technology Improved technology/town baths built

	(b)	(i)	Describe features specific to track and field athletics at the time [4]		
			4 marks for 4 of:		
			1	(AAC)	Amateur Athletics Club (AAC) / governing body formed (1866)/clubs for gentlemen amateurs
			2	(amateurs)	amateurs were middle class/amateurs participated for love or intrinsic rewards/amateurs could not earn money from running/amateurs did not train seriously or aim to win at all costs/amateur athletics elitist
			3	(exclusion cause)	exclusion cause/no mechanic artisan or labourer could join the governing body
			4	(professionalism)	professionals ran for a living or to make money/professional athletics developed in cities/sports days organised by local promoters
			5	(corruption)	corruption or cheating in professional athletics/accept suitable example eg conspiracy by promoters on handicapping
			6	(facilities)	most big cities had a track by mid century/large spectator attraction/urban sports festival followed decline of rural fairs
			7	(clubs)	cross country/harrier clubs/clubs for working class/harrier clubs evolved from hare and hounds
			8	(Olympic Games)	Modern Olympic Games established/impact of Baron Pierre de Coubertin/games to promote international relations or friendship among youth
		(ii)	Identify and describe two different forms of athletics in nineteenth century Public Schools. [2]		
			2 marks for 2 of: must have identification and description for one mark Mark 1st two only.		
				Identification	Description
			1	hare and hounds	paper chase/adaptation from fox hunting/accept accurate description ref dropping of 'scent' for others to follow
			2	Steeplechase/cross country	adaptation from steeplechase on horse-back/boys ran over hedges and fields/suitable description of cross country
			3	sports day	social occasion with many spectators/due to improved rail transport/copied from Exeter College, Oxford/opportunity for Head to 'show off' school or to ask for donations/highly organised or structured

		(iii)	Explain the growth and popularity of pedestrianism.		[5]
			Levels mark scheme		
			Level 3: 5 marks		
			<ul style="list-style-type: none"> detailed answers with accurate explanations rather than brief identification of points both parts of question are addressed candidates show excellent knowledge and understanding of the growth and popularity of pedestrianism. 		
			Level 2: 3-4 marks		
			<ul style="list-style-type: none"> at the upper end both parts of question addressed but there may be a lack of balance some points are discussed well while others are briefly identified candidates show good knowledge and understanding of the growth and popularity of pedestrianism. 		
			Level 1: 1-2 marks		
			<ul style="list-style-type: none"> only one part of the question may have been answered answers are simplistic, brief or narrow points are identified rather than discussed candidates show little or very little knowledge or understanding of pedestrianism. 		
			Growth of Pedestrianism		
			1	(footmen)	footmen employed as messengers or as competitive runners
			2	(wagering 1)	Gentry bet on outcome of their employees
			3	(patronage)	gentry patrons looked after lower class runners/set up races/provided 'purses'/promoters/sponsors
			4	(festival)	became huge festival occasions/great spectator attraction/highly organised/structured
			5	(who/what?)	Robert Barclay Allardice/Deerfoot (Native American)/other suitable example/ 1000 miles in 1000hrs/hopping races around Hyde Park or other suitable example
			6	(simple)	Cheap/simple equipment
			7	(violence/corruption)	cheating common/match fixing/violence among participants / crowd/pedestrianism into disrepute/bad reputation
			8	(gentlemen)	gentlemen amateurs competed/to test themselves
			9	(rules)	rules established by organisers
			Popularity of Pedestrianism		
			10	(festival)	festival occasions/popular spectacle/exciting contest
			11	(wagering 2)	wagering
			12	(rewards)	prize money involved/fame/status/money for food/occupational/rags to riches
			13	(linked with...)	other associated attractions/horse racing/prize fighting

	(c)	Why did State Elementary School children not play organised team games in 1902?			[3]
		3 marks for 3 of:			
		1	(time)	lack of time	
		2	(space)	lack of space/only had yard/road/classroom	
		3	(equipment/facilities)	lack of specialist facilities/equipment	
		4	(coaching)	lack of coaching/teaching expertise	
		5	(health/energy)	lack of health/energy/malnutrition	
		6	(militarism)	other aims more important/needed fitness for war/just performed badly in Boer War/Model Course imposed (by War Office)	
		7	(age)	children too young for large team games	
					TOTAL: [21 MARKS]

2	(a)	(i)	Why is cricket a leading professional sport in Australia?		[3]
			3 marks total		
			1	(Tradition)	Long tradition of cricket/tradition since settlement/Australia sporting tradition
			2	(Colonialism)	Colonial influence/cricket brought from England/game was played in the colonial era
			3	(Motherland)	Victory against England/motherland seen as measure/benchmark of progress/Ashes rivalry
			4	(Climate)	Favourable climate
			5	(Role models)	Role models to copy/inspiration from of outstanding players
			6	(Commercialism)	Commercial opportunities/professional cricket is now a business
			7	(Media)	Increased media interest
			8	(Trends/change)	Changes in rules/changes in times/flood lit cricket/World Series/coloured kit/game more exciting/major changes came from Australia
			9	(Structure)	Well organised/clear pathway/structure to promote excellence/coach promising players
		(ii)	Explain how the Australian Institute of Sport (AIS) supports elite performers.		[4]
			4 marks total		
			1	(Centres of Excellence)	Institutes are centres of sporting excellence/finishing schools
			2	(Sponsorship)	Institutes grant financial aid/give grants/sponsor athletes
			3	(Sports medicine)	Provide sports medicine/physiotherapy/medical services
			4	(Coaching)	High level coaching/high quality coaching/highly qualified coaches
			5	(Competition)	Competitive opportunities/national/international competition
			6	(Athletic Career Education A.C.E.)	Athletic Career Education Programme/Career training outside of competitive sport.
			7	(Technology)	On line coaching/digital imagery/advanced technology
			8	(Facilities)	Some Institutes have outstanding sports facilities
			9	(Resource)	Some Institutes are seen as a resource/resource rather than a facility

	(b)	(i)	Outline factors that have promoted mass participation in sport and physical recreation in France.	[4]
			4 marks total	
			1 (Funding)	Government investment to improve sporting provision/De Gaulle programme
			2 (Additional funding)	Lottery/Business levy
			3 (Facilities)	Improved/high quality facilities/sports facilities provided throughout France/decentralisation/multi-sport facilities
			4 (Joint provision)	Joint provision/shared facilities/school and community share
			5 (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
			6 (School delivery/provision)	School has promoted mass participation through UNSS/Primary Sport Schools/Study sections/increased accessibility/improved the profile of sport
			7 (New games)	New games have been encouraged/become popular/new games like golf have become popular
			8 (Equality women)	Women's participation has increased/women made a target sports group
			9 (Equality disability)	Vigorous disability policy/Federation for less able/handicapped people/Federation Handisports (FFH) for less able people promotes mass participation
			10 (Climate/ Geography)	Mass participation is promoted because of diverse climate for sport/space on the land
		(ii)	What has helped to improve the quality of Physical Education in French schools?	[3]
			3 marks total	
			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 also used 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/CAPEPS for teachers/upgrade of teacher training
			7 (Exams)	PE is part of the exam system/part of Baccalaureate exam
			8 (Inspection)	Inspection has improved the quality of PE/schools inspected every two years/quality is checked

	(c)	In the USA attending a summer camp can be expensive. Explain how the socio-economic system of the USA is reflected in the range of summer camps. Describe the benefits that a young person could gain by attending a summer camp in the USA. [7]
		7 marks total
		Socio-economic system
	1	(Choice of camp) Camp is based on money/wealth of the family
	2	(Expense) Expensive camps are better than cheap ones/money buys a quality 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 business providing the sponsorship
	5	(Commercial camps) Commercial camps are expensive/commercial camps only for wealth children
		Benefits
	6	(Outdoor adventure/activities) Outdoor experiences/adventure opportunities
	7	(Specialist camps) Sports/music etc. camps provide opportunity to improve skills/expertise/improve fitness
	8	(Self improvement) Self improvement camps/improve image/weight loss camps/or eq
	9	(Socialisation) Opportunity to meet people/to make friends
	10	(Personal Development) Leadership/teamwork/communication
	11	(Self-realisation) Opportunity for self-realisation/finding out about yourself
	12	(Challenge) Activities provide challenge/excitement/fun
	13	(Residential) A residential experience/opportunity to live away from home/achieve independence
	14	(Patriotism) Develop love of country/develop patriotism/patriotic rituals/spirit of frontierism
	15	(Environmental skills) Learn about environment/safety/map reading/camp craft/or other suitable eggs
	16	(Enrichment) Enriching/life enriching/improve quality of life/preparation for life/leisure

	<p>Levels mark scheme.</p> <p>Level 3: 6 – 7 marks</p> <p>To achieve this level a candidate will fully develop at least one point relating to summer camps and the socio-economic system.</p> <p>Answer will be well developed and will show sound knowledge and understanding of the benefits of the summer camps for children.</p> <p>Some points will have been expanded and developed.</p> <p>Answers will be well structured.</p> <p>Candidates may point out that the socio-economic system is unfair/may comment on how equality is addressed.</p> <p>Level 2: 3 - 5 marks</p> <p>A candidate towards the top of this level will show some knowledge as to how the socio-economic system is reflected in the summer camp selection.</p> <p>Some knowledge will be demonstrated relating to the benefits but detail may be lacking.</p> <p>Answers will show some structure.</p> <p>Level 1: 1 – 2 marks</p> <p>A candidate at this level may not be aware of the connection between socio-economic system and summer camp selection.</p> <p>Little knowledge or understanding of the benefits will be demonstrated.</p> <p>Answers here will lack depth, detail and structure.</p>
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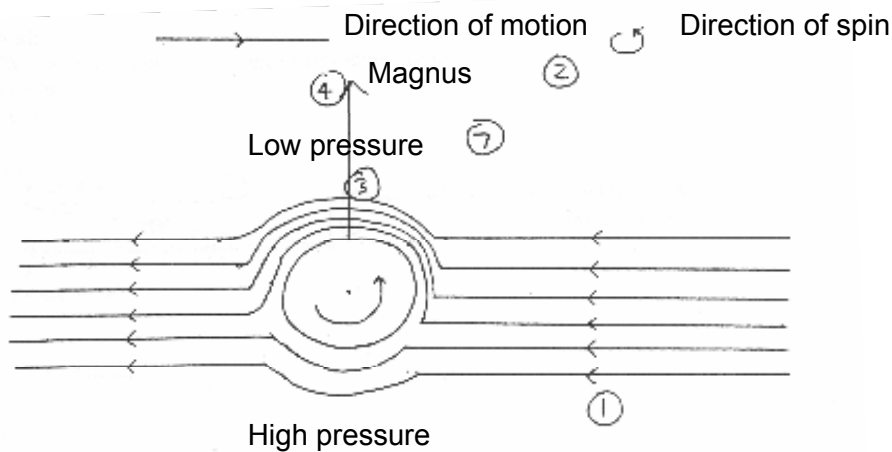
Quality of Language

Three marks are available for the quality of Written Communication.

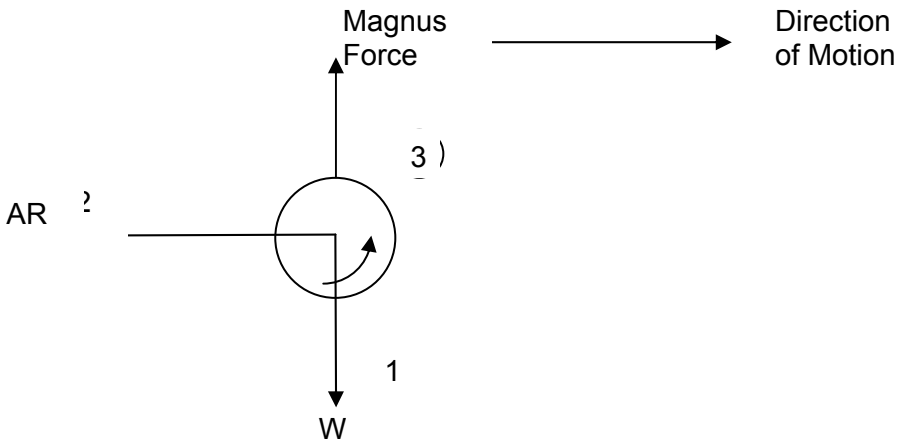
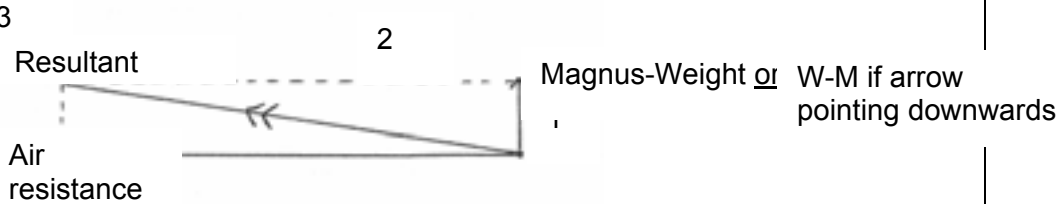
- High:** A well reasoned, well ordered developmental explanation.
In clear, concise and continuous prose.
Sentences and paragraphs follow on from one another smoothly and logically.
There will be **few, if any, errors** of grammar, punctuation and spelling. **3 marks**
- Middle:** Reasoned statements 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**

Section B: Biomechanical Analysis of Human Movement	
3	<p>(a) Fig 1 shows a golfer striking a ball off the tee. Sketch and label a diagram showing all the forces acting on the ball at the moment of contact. [2]</p> <p>2 marks total:</p> <ol style="list-style-type: none"> 1 Force/F from edge of ball. 2 Weight/W from CM. <div style="text-align: center;"> </div>
	<p>(b) Explain the effect of a follow through when striking a golf ball. [4]</p> <p>4 marks total:</p> <ol style="list-style-type: none"> 1 Increases the time the force acts on the ball. 2 Increases the impulse of force acting on the ball. 3 Increases outgoing/change in momentum of the ball. 4 Increases outgoing velocity/speed of the ball. 5 Increases the distance/height the ball travels. 6 Increases the control/accuracy over the ball.
	<p>(c) Identify three types of spin and describe the effect of each of these on the flight path of a golf ball. [3]</p> <p>3 marks total:</p> <ol style="list-style-type: none"> 1 Topspin will shorten the flight path/make ball dip in flight. 2 Backspin will lengthen the flight path/make ball appear to hang. 3 Sidespin will make ball swerve/hook/slice.

(d)	Explain what is meant by the Magnus Effect when a golf ball is hit with backspin. Use an airflow diagram to support your answer. [6]
	Level 3 5-6 marks
	Candidates will give an accurate diagram and offer a full explanation of the Magnus Effect.
	Level 2 3-4 marks
	Diagram is mainly accurate but explanation may lack clarity and some coherence. At the top of this level candidates should show an understanding of how a pressure gradient is created and differences in the widths of air flow lines going over the top of and underneath the ball.
	Level 1 1-2 marks
	The diagram will be basic. There will be little attempt to explain the Magnus Effect. At the top of this level candidates will be able to show the direction of air flow in relation to the direction of travel and that the Magnus force acts upwards for backspin.
	Indicative content. 6 marks total:



	<ol style="list-style-type: none"> 1 (Diagram) Airflow line arrows opposite direction of motion. 2 (Diagram) Direction of spin in relation to direction of motion. 3 (Diagram) Narrower airflow lines above the ball. 4 (Diagram) Direction of force/Magnus at right angles to the direction of travel upwards. 5 Air travels further over the top of the ball. 6 Air travels faster over the top of the ball. 7 Creates a low pressure above ball/or on diagram. 8 Causes force to go from high to low pressure. 9 Non parabolic/non asymmetrical flight path.
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	(e) (i)	<p>Sketch a free body diagram showing the forces acting on a golf ball with backspin during flight. [3]</p>
		<p>3 marks total:</p>
		<p>1 Weight/W (from CM) 2 Air resistance/fluid friction from CM/back of ball opposite direction of motion 3 Magnus force (from ball upwards at right angles to direction of motion)</p> 
	(ii)	<p>Using a separate diagram, show how you would work out the resultant force acting on this golf ball. [3]</p>
		<p>3 marks total:</p>
		<p>1 Weight/W – Magnus <u>and</u> air resistance from same point. 2 Parallelogram. 3 Resultant force.</p> 
		<p style="text-align: right;">1</p>

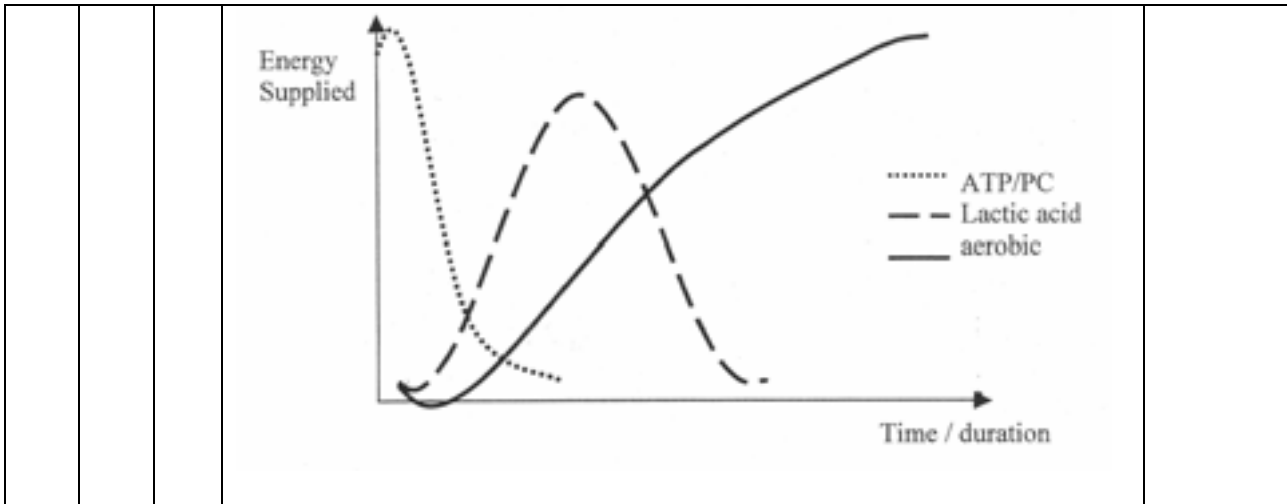
4	(a)	<p>A performer's motive to avoid failure is regarded as less positive than the motive to achieve in sport.</p> <p>Identify the characteristics of a 'need to avoid failure' personality. [3]</p> <p>3 marks total:</p> <ol style="list-style-type: none"> 1 Innate personality characteristics/natural traits/enduring 2 Avoidance behaviour 3 Avoids challenges/avoids excitement/avoids risks/takes easy route 4 Takes unachievable challenges 5 Avoids competition/less competitive 6 Lacks confidence/self efficacy 7 Lacks persistence on task/gives up (easily) 8 Avoids taking responsibility for actions/attributes success to external factors/failure to internal factors 9 Dislikes/avoids feedback/dislikes evaluation/dislikes/avoids audience 10 Competition affects achievement motivation.
	(b)	<p>What factors affect the formation and development of a cohesive team in sport? [4]</p> <p>4 marks total: Look for opposites</p> <ol style="list-style-type: none"> 1 Selection of those who are 'team players' 2 Environment of compromise/players to respect one another/to listen 3 Have a clear view of aims/goals/mission/share the same goals/similar reasons for playing 4 Participants to share behavioural norms/similar outlook/beliefs 5 Credit for personal success/highlight individual performance effects cohesiveness 6 Overplaying team goals/aims/set appropriate goals 7 The use of co-ordination practice/team building exercises 8 Encouragement/social support/encourage friendship 9 Reinforcement/praise cohesive/motivated behaviour/reward teamwork 10 Punishment/drop non-team/un-cohesive players 11 Encouragement of group identity/belonging 12 Clarification/give individual responsibility/roles 13 A leader who encourages teamwork/who leads how the team wants 14 Split team up into smaller subgroups/combat the Ringelmann effect by dividing into small groups/having goals for sub-sets/smaller groups/size of groups 15 Winning/losing

	(c)	<p>Many top sports' performers have a high level of confidence. Vealey's sports confidence model shown in figure 2 shows the relationship between competitiveness and self-confidence in sport.</p> <p>Using figure 2 and practical examples, explain how subjective outcomes of a performance in sport can affect self-confidence. [5]</p> <p>5 marks total:</p> <p>(3 marks max if no practical examples)</p> <ol style="list-style-type: none"> 1 Subjective outcomes relate to how the performer rates the performance/how well he or she has done/or equivalent application. 2 SC-Trait is the innate/inbuilt/natural tendency to be confident. 3 SC-State is the degree of confidence in a specific sports situation/efficacy 4 If outcome perceived to be good then SC-Trait is increased. 5 If outcome perceived to be poor/a failure then SC-Trait is decreased. 6 Subjective outcome affects competitive orientation/level of competitiveness either positively or negatively. 7 If outcome perceived to be good then competitiveness is increased. 8 If outcome perceived to be poor then competitiveness decreases. 9 Positive outcome/SC-Trait/competitiveness increases will raise state sport confidence (SC-State)/raise self-efficiency/will make performer more confident/encourage approach behaviour. 10 Negative outcome/SC-Trait/competitiveness decreases will lower state sports confidence/will result in avoidance behaviour.
	(d)	<p>Goal setting is an important aspect in a sports performer's preparation for competition.</p>
	(i)	<p>Using examples from sport, explain three main factors that make the setting of goals effective in sport. [3]</p>
		<p>3 marks total: Mark 1st three</p>
		<p>(Based on SMARTER principle) (1 mark max if no sports examples – must have explanation as well as identification)</p> <ol style="list-style-type: none"> 1 (Goals should be specific) directly linked to an outcome. 2 (Goals should be measurable) an objective aspect that is measured. 3 (Goals should be achievable) within reach/attainable/realistic/get success. 4 (Goals should be relevant) at the right level/challenging/motivating. 5 (Goals should be time-phased) include short and long term objectives. 6 (Goals should be evaluated) use of self-assessment/reviewed. 7 (Goals should be recorded) records kept/written account/enables accountability. 8 (Goals should be agreed) shared with all parties/other team members/agreement between coach and athlete/negotiated/accepted. 9 (Goals should be positive) rather than negative/motivational/give sense of worth/avoid learned helplessness/exciting.

		<p>(ii) How are process, performance and product goals used to improve performance in sport? [6]</p> <p>6 marks total:</p> <p>Indicative content:</p> <ol style="list-style-type: none"> 1 (process) concerned with technique/style. 2 (process) directs attention/gives information/targets to be more successful/be able to progress with more effective techniques/improves confidence. 3 (performance) comparison with previous attempts/judged against other performances. 4 (performance) improves times/intermediate results a stepping stone to improve outcome/gives feeling of achievement/satisfaction. 5 (product/outcome) focus on end result/to win overall/concerned with outcome of competition. 6 (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. 7 Goal setting can raise self confidence. 8 Goal setting can control arousal levels. 9 Goal setting can motivate/develop strategies to reach set goals. 10 Goal setting can direct attention/focus efforts. 11 Goal setting enables success to be experienced. 12 Goal setting can regulate the amount of effort expended on a particular task/ensures no wasted effort. 13 Application of SMARTER principle. <p>Level 3: 5-6 marks</p> <ul style="list-style-type: none"> • Explanation goes beyond recall • Different affects shown from different types of goal setting (points 1-6 well represented) <p>Level 2: 3-4 marks</p> <ul style="list-style-type: none"> • Mostly recall with most points generic for all goal setting • Some attempt at development made (more than 1 point from points 1-6) <p>Level 1: 1-2 marks</p> <ul style="list-style-type: none"> • Under-developed answer and entirely recall • No attempt to recognise differences in types of goal setting
		TOTAL OF [21 MARKS]

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

Section A Exercise and Sport Physiology			
1	(a)	Knowledge of the three energy systems underpins exercise and sport physiology.	
	(i)	Name an energy system and identify the missing information A, B and C for this system.	[3]
		<p>3 marks in total (from <u>one</u> energy system only)</p> <p>(ATP/PC system) 1 A = PC 2 B = sarcoplasm/cytoplasm 3 C = creatine kinase</p> <p>(lactic acid system) 4 A = glycogen/glucose/carbohydrate 5 B = sarcoplasm/cytoplasm 6 C = glycogen phosphorylase/phosphofructokinase/PFK/lactate dehydrogenase/LDH</p> <p>(aerobic system) 7 A = glycogen/glucose/fats/carbohydrate 8 B = sarcoplasm/mitochondria 9 C = glycogen phosphorylase/phosphofructokinase/PFK</p>	
	(ii)	Sketch a graph of energy supplied against time to show when each of the three energy systems is predominant in relation to duration of exercise.	[3]
		3 marks in total	
		1 ATP-PC system correctly sketched and labelled 2 lactic acid system correctly sketched and labelled 3 aerobic system correctly sketched and labelled	



	<p>(b) Ergogenic aids are substances that enhance performance. Some examples are given in table 1.</p> <p>Describe a method of performance enhancement that could be placed in box D. Identify advantages of using this method.</p> <p>4 marks total</p> <p>2 marks for method (carbohydrate/glycogen loading)</p> <ol style="list-style-type: none"> 1 exhaustive training until a week before competition then taper exercise intensity 2 7-4 days before competition eat low carbohydrate diet/deprive muscles of carbohydrates/eat high protein diet 3 in 3 days leading up to competition eat high carbohydrate diet <p>2 marks for advantage</p> <ol style="list-style-type: none"> 4 safe/minimal risk to health/legal 5 increases activity of enzyme responsible for glycogen synthesis 6 increases glycogen stores/endurance potential/capacity/train for longer 7 increases capacity for high intensity activity 8 reduces recovery time/delays fatigue 9 allows higher quality interval training/strength training sessions. 	<p>[4]</p>
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	(c)	<p>Table 2 identifies physiological adaptations that have taken place after a period of aerobic training.</p> <p>Explain why these physiological adaptations have occurred, giving reasons related <u>only</u> to the heart and vascular system.</p> <p>5 marks in total 5 marks for 5 of:</p>	[5]
		(heart) sub max 3	
	1	greater efficiency	allows more oxygen/blood to be pumped into the systemic circulatory system
	2	increased size/hypertrophy/athlete's heart	which increases the size of the ventricles allowing for increased end diastolic volume/more blood to enter the ventricles
	3	greater elasticity	more blood entering the ventricles increases the stretching of the walls which results in a more forceful contraction
	4	stronger myocardium/muscle	increases force/strength (of contraction) allowing for decreased end diastolic volume/more blood/oxygen to be pumped out per beat
		(vascular system) sub max 3	
	5	capillarisation/new capillaries developed	increases gaseous exchange/allowing more oxygen into the body/expelling carbon dioxide and lactic acid more efficiently
	6	increased elasticity /vasomotor control	increases the effectiveness of the vascular shunt mechanism/more efficient redistribution of cardiac output
	7	increased blood volume	better transport of gases/oxygen and carbon dioxide
	8	increased plasma count/reduces viscosity	which allows blood to flow more quickly/improves circulation
	9	increased red blood cells	increases haemoglobin density to allow for more efficient transport of oxygen
	10	decreased blood pressure	less resistance to blood flow
			TOTAL = [15 MARKS]

Section B Synoptic Question – Scientific Focus		
2		
Part one		
(a)	(Application of Anatomical and Physiological Knowledge to Improve Performance.)	
	Fig 1 shows a performer at the moment of take off for a vertical jump.	
	Sketch figure 1 and show the direction of the force acting on the jumper at this point. Describe the type of motion that will be produced as a result of this force giving examples in your answer.	
	The effect a force can have on a body is explained by Newton’s Laws of Motion. Use your understanding of Newton’s Laws to explain how a performer executes a vertical jump.	
MARK SCHEME		
	Force and Motion	(4 marks)



	<p>1 force shown travelling upwards</p> <p>2 force shown travelling through the body/centre of mass</p> <p>(Description of motion)</p> <p>3 linear motion</p> <p>4 when a body moves in a straight/curved line</p> <p>5 with all its body parts moving the same distance in the same direction at the same speed</p> <p>(examples)</p> <p>any suitable example that links to the definition above</p> <p>eg luge, bobsled, downhill skiing, high diving in fixed body position, torso of 100m sprinter, shot put...</p>	
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	Newton's Laws	(sub max 6 marks)	
		(first law)	
	6	states that a body continues in a state of rest or uniform velocity unless acted on by an external force	
		(application)	
	7	an external force must be applied to the performer	
	8	to allow take off from the ground	
		(second law)	
	9	states that when a force acts on a body, the rate of change of momentum/acceleration is proportional to the size of the force causing it/takes place in the direction in which the force acts	
		(application)	
	10	the force applied to the performer must be upward	
	11	the larger this force, the faster the performer will jump	
		(third law)	
	12	it states that for every action there is an equal and opposite reaction	
		(application)	
	13	as the performer exerts a downward force on the ground	
	14	the ground exerts an equal and upward force on the performer	
		Aerobic exercise causes changes in heart rate.	
		Explain how heart rate is regulated referring to neural, hormonal and intrinsic control in your answer.	
		MARK SCHEME (sub max 6)	
		Regulation of heart rate	
		(neural control)	(sub sub max 3)
	15	cardiac control centre/CCC primarily responsible	
	16	situated in medulla oblongata of the brain	
	17	controlled by the autonomic nervous system/ANS/under involuntary control	
	18	at start of exercise sympathetic nerves increase heart rate/stimulation of SA node (caused by...)	
	19	muscle receptors/proprio-receptors/receptors in muscles detecting an increase in level of exercise	
	20	chemoreceptors detecting changes in blood/muscle chemistry	
	21	chemoreceptors detect increase in lactic acid/carbon dioxide levels	
	22	chemoreceptors detect decrease in oxygen/pH levels	
	23	baroreceptors detecting an increase/change in blood pressure	
		(hormonal control)	(sub sub max 2)
	24	adrenaline being released	
	25	increasing strength of contraction of myocardium/stroke volume	
	26	noradrenaline being released	
	27	helping the spread of the electrical impulse from the SA node through the heart/stimulates SA node	
		(intrinsic control)	(sub sub max 2)
	28	an increase in temperature (spreading up nerve impulses)	
	29	an increase in venous return (causing an increase in stroke volume)/Starling's law of the heart/increase stretch of right atrial wall	
		TOTAL KNOWLEDGE MARKS = [13]	

(b)	(Acquiring and Performing Movement Skills)	
	<p>Skill classification includes the continuum between simple and complex skills and the continuum between high and low organisation.</p> <p>Explain each of these two continua giving movement skill examples.</p> <p>Describe what is meant by gross motor abilities and psychomotor abilities.</p> <p>What are the characteristics of intrinsic and extrinsic methods of motivation?</p> <p>How would you use these methods to promote effective learning of movement skills?</p> <p>Explain each of these two continua giving movement skill examples.</p>	
	<p>(simple/complex)</p> <p>1 Simple skills have very little information to process/few decisions to make/few environmental influences and: Complex skills have a lot of information/decisions/predominantly perceptual.</p> <p>2 Identification of continua being a scale along which movement skills are placed according to the difficulty/amount of processing/decisions related to the skill</p> <p>(High/low organisation)</p> <p>3 Highly organised skills are difficult to break up into sub routines/parts/they are continuous skills/end of one sub-routine becomes the beginning of another and: Low organised skills can be split into sub-routines/parts easily/tend to be serial skills.</p> <p>4 Identification of continua being a scale along which skills are placed according to the make-up of their sub-routines/how well a skill can be broken down</p>	
	<p>Describe what is meant by gross motor abilities and psychomotor abilities.</p> <p>5 Gross motor abilities relate to actual movement that is innate/genetic/natural/a potential/an innate movement.</p> <p>6 Psychomotor ability relates to the processing of information/initiation of movement (rather than actual movement) that is innate/genetic/natural/a potential.</p>	

		What are the characteristics of intrinsic and extrinsic methods of motivation? How would you use these methods to promote effective learning of movement skills?	
		<p>Sub max of 8 marks</p> <p>(Characteristics of Intrinsic)</p> <p>7 Drive from within/internal to the performer/have own goals</p> <p>8 Feelings of (emotional) enjoyment/satisfaction/feeling good/personal bests/pride.</p> <p>9 Muscular sensuousness/enjoying the feeling of movement/kinaesthesia.</p> <p>(Characteristics of extrinsic)</p> <p>10 Drive by external processes/(tangible) rewards.</p> <p>11 Comparisons/competition/want to copy role models</p> <p>12 Pleasing others.</p> <p>(Using intrinsic for effective learning)</p> <p>13 Encouragement/positive reinforcement</p> <p>14 Use goal setting to ensure success/goals that are achievable.</p> <p>15 Measurement of performance/goals to show achievement.</p> <p>16 Overuse of reward can lead to decrease in motivation/by not using extrinsic methods/rewards.</p> <p>17 Making training and competition enjoyable/reducing importance of competition/event.</p> <p>(Using extrinsic for effective learning)</p> <p>18 Regular use of tangible rewards/prizes.</p> <p>19 Use of praise/positive reinforcement. (do not give if given pt 3)</p> <p>Give challenging goals with recognisable success criteria. (do not give if given pt 14)</p> <p>21 Using desirable/effective role models</p>	
		TOTAL [13] KNOWLEDGE MARKS	

Part two			
(c)	(Exercise and Sport Physiology)		
	Identify, define and give a method of evaluation for two components of fitness other than aerobic capacity, strength and flexibility.		
	MARK SCHEME (SUB MAX 6)		
	(answers must be linked across the row)		
	(if egs given, credit in synoptic marks)		
	Identification	Definition	Method of evaluation
	1 Speed	2 how fast you can move part of your body/your whole body (eg sprinting)	3 20m/100m sprint
	4 Reaction time	5 time between a stimulus being detected and the first movement in response to it (eg racing start in swimming)	6 computer programmes/ ruler drop test
	7 Agility	8 combination of speed and coordination/ability of the body to change direction at speed (eg dodging/marking in netball)	9 Illinois agility run
	10 Balance	11 ability of the body to maintain equilibrium (can be static or dynamic) (eg skiing/beam work in gymnastics)	12 stalk stand/balance board
	13 Co-ordination	14 ability to put the relevant motor programmes in the right order to produce smooth/efficient movement (eg lay up in basketball)	15 alternate hand wall toss test
	16 Body composition	17 the relative amounts of fat mass /fat free mass in the body/% of body fat	18 skin fold callipers/underwater weighing/ densitometry/ bioelectric impedance

		<p>A carefully planned training programme is required to improve a specific component of fitness.</p> <p>Describe what is meant by each of the following terms: macrocycles; mesocycles; microcycles.</p> <p>Discuss the benefits of periodisation in planning a training programme.</p>
		MARK SCHEME (sub max 10)
		(macrocycles/mesocycles/microcycles)
		<p>19 macrocycle as the long term/one year training block (will have its own objective)</p> <p>20 ensuring peak physical condition for the competition season</p> <p>21 mesocycle as the intermediate training block/between 1-4 months</p> <p>22 each with its own objective to help achieve the overall objective of the macrocycle</p> <p>23 increase strength/power/endurance</p> <p>24 microcycle as the short term training block/up to 4 weeks</p> <p>25 each block will have its own objective to help achieve the overall object of the mesocycle/macrocycle</p> <p>26 resistance training each week to ensure sufficient recovery and develop endurance strength</p> <p>(benefits of periodisation)</p> <p>27 splits training into specific blocks</p> <p>28 helps to ensure that an optimal physiological peak is reached at the correct time for an important competition eg Olympics/World Cup etc (if not given for pt 20)</p> <p>29 each block is designed to prepare a specific performance component/technique</p> <p>30 training is therefore split into smaller units to maintain motivation/avoid boredom/overtraining/fatigue</p> <p>31 double periodisation allows the performer to peak for a qualifying round and the championships</p> <p>32 before competitive season, athlete may use tapering</p> <p>33 tapering involves reducing the training to allow the body to achieve maximum energy stores prior to competition</p> <p>34 eg focus more on technique than developing fitness</p> <p>35 this would usually last between 1-3 weeks prior to competition.</p>
		TOTAL KNOWLEDGE MARKS = [13]

APPENDIX

Suggested links – not intended to be exhaustive

AS → AS	A2
force motion Newton's Laws centre of mass	momentum impulse projectile motion levers
heart rate control respiratory control	recovery aerobic capacity physiological adaptations to training ergogenic aids
A2 → A2	AS
components of fitness training recovery physiological adaptations to training	muscle fibres heart rate control exercise heart rate strengthening exercises
periodisation other training principles types of training adaptations to training ergogenic aids	muscle fibre types heart rate response to exercise control of blood supply response to exercise respiratory response to exercise

	(d)	(Biomechanical Analysis of Human Movement)	
		Using sporting examples identify the three main axes of rotation and state the angular analogues of Newton's Laws of Motion.	
		Explain how a performer uses the Law of Conservation of Angular Momentum.	[13]
		(Axes of rotation) sub max 3	
	1	Longitudinal (head to toe eg twist/spinning skater).	
	2	Transverse (side to side eg somersault).	
	3	Frontal (front to back eg cartwheel)	
		(Analogue of Newton) sub max 3	
	4	(Newton 1) An object will continue to rotate with constant angular momentum unless acted upon by an external torque/moment of force.	
	5	(Newton 2) The rate of change of angular momentum experienced by an object is proportional to the size of the torque/moment of force acting on it and takes place in the direction in which the torque acts.	
	6	(Newton3) For every torque/moment of force that is exerted by one subject on another there is an equal and opposite torque exerted by the second subject on the first.	
		(Conservation of Angular Momentum) sub max 9	
	7	Angular Momentum = $I\omega$ /moment of inertia x angular velocity.	
	8	Moment of inertia is the body's resistance to rotate/change angular motion.	
	9	Angular velocity is the rate of spin/rate of change of angle of a body.	
		(start/take off)	
	10	Generate angular momentum.	
	11	By applying moment of force/torque to body.	
	12	Large amount of inertia/parts of body long way from axis of rotation.	
	13	Small angular velocity/rate of spin.	
		(during performance/flight)	
	14	Reduce moment of inertia/bring parts of body towards axis of rotation.	
	15	Increases angular velocity/rate of spin (eg more somersaults).	
	16	Due to law of conservation of angular momentum.	
		(just before end/landing)	
	17	Increase the number of inertia/move body parts away from axis of rotation.	
	18	Reduces angular velocity/rate of spin.	
	19	Therefore more control at end of movement.	

		(end/landing)	
	20	Moment of force/torque applied to performer.	
	21	To eliminate angular momentum.	
		TOTAL KNOWLEDGE MARKS = [13]	
		Synoptic links;	
	T1	Axes of rotation – CM = Axis of rotation during flight Newton's Laws (analogues) – Angular acceleration Angular Momentum – Friction causing generation/cessation of AM	
		<ul style="list-style-type: none"> - reaction causing generation/cessation of AM - forces applied outside line of CM 	
	T2	Newton's Laws (Analogues) – Newton's Laws of Motion. Angular Momentum – Movement analysis of actions creating AM.	

	(e)	(Psychology of Sport Performance)			
		<p>The attributions given by performers for success and failure in sport can affect motivation to continue and to improve.</p> <p>Outline Weiner's model of attribution. Use this model to explain how attribution can affect motivation in sport.</p> <p>When motivation is high and success is experienced, performers in sport are often described as being 'in the zone'. Describe and explain what is meant by the zone of optimal functioning.</p>			
		Outline Weiner's model of attribution.			
		7 MARKS:			
		1 Drawing/identification of all aspects of the model/stable and unstable and internal and external.			
		(Locus of Causality)			
			Internal	External	
		Stable			
		Unstable			
		2 (Giving internal stable attributions) means intrinsic qualities/under your control that are not easily changeable/fairly permanent/long lasting (ability)			
		3 (Internal unstable) means intrinsic but changeable reasons (effort)			
		4 (External stable) means environmental/out of your control reasons that are unchangeable (task difficulty)			
		5 (External Unstable) means environmental but changeable (luck)			
		(If ability/effort/task difficulty/luck are identified give T1)			
		Use this model to explain how attribution can affect motivation in sport.			
		(Demotivation)			
		6 If reasons for failure are internal stable/- learned helplessness is the belief that failure is inevitable/failure has been reinforced/can demotivate.			
		(Motivation)			
		7 If reasons for success are internal/stable/mastery orientation - is having high self-confidence/positive outlook/need to achieve/high motivation.			

		8	If losing motivate through emphasis on unstable factors	
		9	If winning motivate through emphasis on internal factors	
		(Describe and explain what is meant by the zone of optimal functioning.)		
		6 MARKS:		
		(zone of optimal functioning)		
		10	An emotional/affective response/enjoyment/satisfaction/fulfilment.	
		11	(Described as) peak flow experience.	
		12	Associated with the elite/very good performers/good performance/best of their ability	
		13	High level of confidence/sports confidence/self efficacy.	
		14	Is relaxed/lack of stress response/not anxious.	
		15	Ideal/optimal level of arousal of the performer/high level of motivation that is under control/high level of inner drive/self motivation/graph showing this	
		16	Performer has maximum concentration and effort/focussed	
		17	Appropriate attentional control/(often) narrow/internal attention/cue utilisation is good/right amount of cues.	
		18	Movements are automatic/little conscious control (synoptic link with motor programmes).	
		19	The more experienced/able the performer higher arousal is needed for ZOF	
		TOTAL OF 13 KNOWLEDGE MARKS		

	<p>LINKS</p> <p>T1: A/S > A/S Classification Types of practice Arousal/Reinforcement</p> <p>T1: A2 > A2 Achievement motivation Stress and stress management Attentional control/Nideffer Emotional control/confidence/self efficacy</p> <p>T2: A/S > A2 Classification > confidence/attentional control Ability > Personality achievement motivation Motivation > achievement motivation/Zone</p> <p>T2: A2 > A/S Attribution > Motivation Attribution > abilities Attribution > Operant conditioning Zone > Arousal/motivation Zone > motor programmes</p>	

3	(Socio-cultural focus)		
Part One			
	(a)	(Contemporary Studies in Physical Education)	
		13 marks: 1 mark for each response up to a maximum of 13	
		Sub max 3	
		Outline what is meant by the continuum from mass participation to sporting excellence.	
	1	(continuum)	Line or range between extremes/a line along which items blend into each other/a series of different items/an imaginary scale/a line along which it is difficult to say where one item becomes the next/a transition between different concepts.
	2	(mass participation)	Sport for all/taking part more important than winning/taking part for recreation or fun or health and fitness/lifetime sport/an inclusive concept/wide base of participation
	3	(sporting excellence)	Elite performance/the best performers/winning important/professional performances/a selective or exclusive concept
	4	(narrow)	Mass participation narrows to sporting excellence
	5	(increase/decrease)	Increase or decrease in things such as level of organisation or commitment or skill or eq
		Sub max 10	
		Explain each of the three concepts: Play, Physical Recreation and Sport in terms of their characteristics and associated values.	
		Characteristics of PLAY – sub max 2	
	6	(time)	time decided by participants/no set time/no time limits
	7	(spontaneity)	spur of moment/spontaneous/unplanned
	8	(who?)	both children and adults play
	9	(organisation)	simple or low organisation/basic equipment/no set numbers
	10	(space)	space or boundaries decided by participants/no set space or pitch/no space limits/no boundaries
	11	(option)	optional/choice/voluntary
	12	(enjoyable)	enjoyable/fun/self-fulfilling/intrinsic value/childlike
	13	(rules)	flexible or relaxed or few rules/rules by agreement
	14	(non-serious)	non serious/non-productive/result not important
		Values of PLAY – sub max 2	
	15	(leadership)	leadership/opportunity to be in charge
	16	(cognitive)	cognitive skills/creativity
	17	(pretence)	use of imagination/role play for later life/master reality
	18	(social)	social skills/making friends/communication/co-operation/team work/respect of others
	19	(emotional/moral)	emotional skills/moral skills/coping with difficulty/right and wrong/accept defeat/fair play/not cheating
	20	(physical)	physical skills/motor skills/body management
	21	(self)	self-confidence/learn about self/self realisation
	22	(environment)	knowledge of or respect for environment or safety

Characteristics of PHYSICAL RECREATION – sub max 2			
	23	(s&f)	limited skill or fitness
	24	(organisation)	limited organisation/no officials
	25	(rules)	flexible rules/NGB rules don't need to be followed
	26	(competition)	limited competition
	27	(enjoyable)	enjoyable/taking part more important than winning/non-serious/low level of commitment
	28	(equipment)	basic equipment/no specialist clothing/inexpensive
	29	(availability)	available to all/everyone
	30	(time)	time flexible or decided by agreement/free time
	31	(amateur)	amateur/voluntary/choice/pre-occupation/hobby
	32	(space)	space or place flexible or decided by agreement
Values of PHYSICAL RECREATION – sub max 2			
	33	(skill)	become more skilful or competent
	34	(h & f)	improved health or fitness or well being
	35	(relaxation)	relaxation/stress relief/escape from pressure
	36	(appearance)	improve body shape or appearance or image
	37	(social)	social element or to meet people/friendships
	38	(self...)	self-fulfilment/spiritual development/improved self esteem or confidence/self realisation/intrinsic reward
Characteristics of SPORT – sub max 2			
	39	(rules)	rules/NGBs/organised/structured/officials
	40	(competitive)	competitive/leagues/competitions/serious
	41	(commitment)	commitment/dedication/determination/effort/endeavour/training
	42	(skill)	skill/prowess/fitness/high level/elite/tactics
	43	(time)	strict time limits/set time
	44	(behaviour)	sportsmanship/fair play/gamesmanship
	45	(chance)	with element of chance
	46	(equipment)	specialist equipment or specialist kit
	47	(space)	set space or place/fixed boundaries/purpose built facilities
	48	(commercialism)	sponsorship/media coverage/commercialism/spectatorism
Values of SPORT – sub max 2			
	49	(intrinsic)	intrinsic rewards or values/satisfaction/personal fulfilment/wanting to be the best
	50	(extrinsic)	extrinsic rewards or values/winning or outcome important/for job/professional/for money/fame/recognition

Part two	Answer either (b) or (c)			
(b)	(Historical Studies in Physical Education)			
		13 marks: 1 mark for each response up to a maximum of 13		
		Identify and explain factors that led to sporting excellence in late nineteenth century Public Schools. Your discussion should include reference to opportunity and provision for sports and games.		
		Opportunity – sub max 6		
	1	(time)	significant time/boarding influence	
	2	(money)	endowments/regular income/old boys' subscriptions	
	3	(money)	fees/fee paying schools/fees used to improve provision	
	4	(regularity)	regularity of play/playing regularly increased standards	
	5	(inter-house)	inter-House games/house teams/importance of house matches	
	6	(inter-school)	inter-school games/annual fixtures v other major public schools/'network' of public schools	
	7	(community)	fixtures with local clubs/links with the community/fixtures against prestigious clubs eg annual matches v MCC (cricket)	
	8	(compulsion)	compulsion/daily games compulsory in many public schools	
		Provision – sub max 6		
	9	(facilities)	specialist facilities/swimming baths/rackets or fives or squash or lawn tennis courts	
	10	(facilities)	land/buying of land for pitches/extensive playing fields/facilities often used by major associations for special occasions and competitions	
	11	(expertise – Obs & 6 th)	employment of Oxbridge 'blues'/Oxbridge returnees/impact of the Gentleman Amateur/skilled old boys/Sixth Formers	
	12	(expertise - masters)	masters joined in team games/played squash or fives or tennis with or against boys	
	13	(expertise – pros)	employment of lower class professionals/games professionals or cricket or racquets coaches	
	14	(competition)	championships/big competitions/training for big competitions	
	15	(athletics)	Athletics Sports Days/schools often first to hold athletic sports meetings in towns	
		Other relevant factors – sub max 6		
	16	(organisation)	highly organised games programmes	
	17	(headmasters)	Headmasters' encouragement/support eg Dr Arnold of Rugby School	
	18	(role Models)	impact of games masters or assistant masters or sixth form as role models or heroes/eg Brooke in Tom Brown's Schooldays/Old Boys as heroes or role models	
	19	(rational sport)	influence of rational sport	
	20	(rational sport)	rules and NGBs/made regularity and fixtures more likely	
	21	(self discipline)	using games to achieve social control or discipline	
	22	(attitude)	attitude/playing games as part of a well balanced education encouraged/commitment	
	23	(athleticism/values)	Moral integrity/physical endeavour/leadership (values that lead to excellence)	
				TOTAL KNOWLEDGE MARKS = [13]

		T1 – links within AS Contemporary Studies
		SE – sporting excellence MP = mass participation
		<ul style="list-style-type: none"> • There are other concepts within Field of Study eg leisure, physical and outdoor education and outdoor recreation. • Both parts of fig 1 can be seen in relations to the performance pyramid (with mass participation at base and sporting excellence at apex). • Discrimination affects MP and SE • Minority groups eg women or people with disabilities are likely to suffer most from discrimination/are least likely to a) take part b) achieve excellence. • Media covers SE not MP • High level male sport dominates coverage • Sport can be linked to American Dream • Sport can be linked to sponsorship and big business • Sport can sometimes be linked to deviance and unethical behaviour
		Organisation and Administration:
		<ul style="list-style-type: none"> • Special interest groups eh WSF and DSE help people onto and along the continuum. • Sport England concentrates on mass participation. • UK Sport concentrates on sporting excellence.
		T1 – links within A2 Historical Studies
		<ul style="list-style-type: none"> • Gender discrimination/minimal opportunity and provision for females. • Influence of societal changes on excellence in public schools eg the civilising process in society/improved transport/increase law and order etc. • Nineteenth century public school developments/transitions show same 'progress' as transitions from popular recreation to rational recreation. • Note different objectives, content and methodology between boys public schools and state elementary schools.

T2 – links between AS (contemporary) and A2 (historical)			
		<ul style="list-style-type: none"> Continuum from play to sport could be linked to/compared with/mirrored by 3 stages of development in C19th public schools. Opportunity and provision in C19th public schools links to opportunity and provision for MP and SE today. Sports colleges (today) cater for both mass participation and excellence as did the public schools of late C19th (in theory). Other links between sports colleges today and public schools of late C19th such as: 	
		Specialist Sports Colleges (today)	Public Schools (late C19th)
		impact of flexible time table/more time for sport and PE	time impact of boarding
		impact of lottery funding/per capita allowance	money impact of fees & endowments
		each pupil does GCSE PE/each pupil must satisfy minimum time requirement	choice daily games often compulsion
		regular inter house or inter school fixture/promotion to county or area teams	competitions regular inter house or inter school fixture or other fixtures/Sports Days
		cater for both mass participation and excellence	ability catered (in theory) for both mass participation and excellence
		often plentiful	equipment extensive
		excellent staffing ratios/large number of specialist staff/excellent staff expertise/excellent coaching	coaches professionals in cricket or racquets/assistant masters as games coaches/Oxbridge returnees as role models
		often excellent/sometimes surprisingly average/most have plans for improvement	facilities/space extensive/specialist facilities/lots of space
		usually have minibuses which are widely available for sporting fixtures	transport money made available for hiring buses and catching trains

	(c)	(Comparative studies in Physical Education)	
		Explain how High Schools and Colleges in the USA help to prepare performers for professional sport.	
		8 marks sub max	
		1 (Excellence)	Centres of sport excellence
		2 (Scholarship)	Best players receive sports scholarship into College
		3 (Coach)	Specialist coach employed
		4 (Coach)	Hire and fire contract/incentive to produce talent/excellence
		5 (Professional)	High School/College sport is a reflection of the professional game
		6 (Standard)	Sport is of high standard/high level/high status
		7 (Specialisation)	Student/student athlete will focus on one sport
		8 (Commercialism)	College sport is run as a business
		9 (Facilities Stadium)	Matches/competitions played in Stadia
		10 (Facilities equipment)	High quality/professional standard of equipment
		11 (Facilities Medical)	Availability of medical services/physiotherapy/medicine/surgery
		12 (Media)	Media gives College sport high profile/media attraction
		13 (Lombardianism)	Lombardian/win ethic is instilled Lombardian/win ethic at School/College
		14 (Pro-draft)	Pro-draft/clubs sign players from Colleges

		Compare the United Kingdom Sports Institute (UKSI) with either the Institute of Sport in France (INSEP) or the Australian Institute of Sport (AIS) in terms of aims, organisation and provision that will help the performer to achieve potential.		
		UKSI	INSEP	AIS
	Aims			
	15 (Excellence)	All aim to promote sporting excellence/AIS perceived as 'finishing schools' for sport		
	16 (Elite)	Allow/enable the best/elite sportsmen and women to compete at international level		
	17 (Win ethic)	Institutes aim to produce winning teams at international level		
	18 (Ethics)	Strong code of sporting ethics across all Institutes		
	Organisation			
	19 (Division)	4 Home County Institutes separate management	INSEP serves the whole of France	AIS serves the whole of Australia
	20 (Network cultures)	Network centres eg Bath/Loughborough	Specialist Centres eg Font Romeu/ CREPS	Each Institute independent/ autonomous/ equal status. Minimum of one Institute per state
	21 (Control)	Central Service Team/English Institute London Service Team	Focus/major centre in Paris/centralised	
	22 (Accountability)	To UK Sport	National Olympic and Sports Committee	National Elite Sports Council/Government
	23 (Funding)	UK Sport/Lottery/ 2012 Govt funding in run up to the Olympics	Central/Government funding	Australian Sports Commission (ASC) Government funding
	24 (Links)	Links with National Governing Body	Links with Sporting Federations	Links with clubs/schools/regional squads
	Provision			
	25 Multi-sports	Commitment across a broad range of sports		
	26 Medical support	Medical support for athletes. Frequent health checks for athletes. Provide medical services.		
	27 Sport Science	Expertise in sports related science	Specialises in sports science	Expertise in sports related science
	28 Education	Lifestyle career advice/Administers ACE UK/education for post sport career/vocational advice	INSEP delivers academic/ professional training	Athletic Career Education (ACE programme)/athletes given vocational opportunities
	29 Facilities	High quality facilities in all centres eg (gymnastics in Lillishall)	High quality on site/specialist centres eg (Font Romeu)	High quality in specific centres/some without facilities on site/some used as a resource eg (VIS)

	30	Natural facilities	Limited scope for natural facilities within country	Advantage of high altitude/Alpine facilities for Winter Olympics within country	Desert Institute of Sport/climate is a significant advantage
	31	Coaching	High quality specialist coaching	High quality specialist coaching/ Winter Olympics	High quality specialist coaching/on line coaching eg from VIS
	32	Finance distribution	Grants to aid performance/3 levels of grant given to top performers/ Governing Body can apply for cash	Government subsidy for training needs/full grant aid to Olympic athletes	Financial assistance given to all Institute athletes
				TOTAL KNOWLEDGE MARKS = [13]	
			Examples of T1 links		
			USA High Schools and Colleges		
			Little League Sports		
			Dominance of 'Big 4' sports		
			Growth of Midnight basketball Leagues/Community Provision		
			Lack of mass participation policy		
			Exploitation of student athletes		
			Examples of T2 links		
			USA High Schools and Colleges with UK equivalent		
			Sports Colleges		
			Network of Sports development eg PDMs, SSCos and PLT		
			Academies of sport		
			Sport specialist courses at University		
			T1 links INSEP and AIS		

	INSEP	AIS
	Centralised operation	Decentralised operation
	Centre for Sports Education	ASC operation
	Selects elite athletes	ASC also responsible for mass participation policy
	Determines which sports will qualify for INSEP attention	Distance is a problem in Australia. Therefore some online coaching
	Has responsibility for development of French sport	Links with Nationalism and political policy
	Networks with over 40 countries	Sport has strong links with culture eg obsession
	Closely linked with Nationalism and economic plan first designed by de Gaulle	ACE programme is linked closely with schools eg Sports Person in Schools Project
	Clubs and Regional Representation also promote excellence	
	Other strategies to develop excellence found in education	
	UNSS, Sports Section Primary Sports Schools	Sports Linkage scheme in schools is first part of 'Progression Pathway'

Banded criteria for synoptic assessment

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

Grade Thresholds

Advanced GCE (Subject) (Aggregation Code(s))
January 2008 Examination Series

Unit Threshold Marks

Unit		Maximum Mark	A	B	C	D	E	U
2562	Raw	60	44	39	34	29	25	0
	UMS	120	96	84	72	60	48	0
2563	Raw	45	34	31	28	25	23	0
	UMS	90	72	63	54	45	36	0
2565	Raw	45	29	26	23	20	17	0
	UMS	90	72	63	54	45	36	0
2566	Raw	60	48	44	40	36	32	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
3875	300	240	210	180	150	120	0
7875	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
3875	9.08	28.44	52.04	80.94	96.97	100	661
7875	7.14	29.46	60.71	89.29	97.32	100	112

773 candidates aggregated this series

For a description of how UMS marks are calculated see:
http://www.ocr.org.uk/learners/ums_results.html

Statistics are correct at the time of publication.

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