

GCE

Physical Education

Unit **G453**: Principles and concepts across different areas of Physical Education

Advanced GCE

Mark Scheme for June 2015

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All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

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Annotations used in the detailed Mark Scheme (to include abbreviations and subject-specific conventions)

Annotation	Meaning
✓	= Correct response
BOD	= Benefit of the doubt
REP	= Repeat
TV	= Too Vague
DEV	= Development (levels scheme)
SEEN	= Noted but no credit given
L1	= Level 1 (levels scheme)
L2	= Level 2 (levels scheme)
L3	= Level 3 (levels scheme)
L4	= Level 4 (levels scheme)
EG	= Practical example (levels scheme)
S	= Sub max

Subject-specific Marking Instructions

Marking responses 'a - c'; points marked questions

An element of professional judgement is required in the marking of G453. Correct answers should always be rewarded irrespective of whether or not they appear on the mark scheme. If you are in doubt about the validity of any answer then consult your Team Leader (Supervisor) by phone or e-mail.

Marking response 'd'; levels of response marked question

It is quite possible for an excellent and valid answer to contain knowledge and arguments which do not appear in the indicative content on the mark scheme. Each answer must be assessed on its own merits according to the generic descriptors and discriminators.

The levels of response descriptors are cumulative, ie a description at one level builds on or improves the descriptions at lower levels. Not all qualities listed in a level must be demonstrated in an answer for it to fall in that level.

Candidates will take different approaches to achieve within the same level. Some will adopt a less focused approach but demonstrate a wide range of knowledge others may adopt a more focused approach using a narrower range of well-developed knowledge.

Approach to marking levels of response questions:

- read the candidate response in full;
- working from the top down and using a *best-fit* approach, refer to the generic descriptors and discriminators to determine the level;
- re-read the answer, highlighting credit worthy aspects of the response in relation to knowledge, understanding, development, examples, etc;
- confirm or revise initial decision re level;
- determine the mark within the level as per the guidance in 10 (above), with reference to the discriminators, and, again, using a *best-fit* approach.

Section A - Historical Studies (Option A1)

Question		Answer	Marks	Guidance
1 (a)	4 marks for 4 of: Objectives of 1933 s	yllabus (sub max 3)	4	Sub max 3 for objectives of 1933 syllabus
	1. (fitness/health) 2. (skills) 3. (physique) 4. (posture) 5. (mind and body)	Physical fitness/strengthening or health or therapeutic benefits Acquiring skills Physique development / improving physique Development of (correct) posture Holistic development / development of mind and body Ilabus replaced in 1950s (sub max 1) Accept first answer only post war or 1950s were more idealistic times or changes in educational philosophy or a more child centred approach welfare state system (in 1950s) or improved standard of living or government provision for/ encouragement of health more creative approach needed or need / desire for fewer prescriptive 'tables' or less prescriptive syllabus desire to develop cognitive / social skills or to develop problem solving more varied content needed or 1933 too limited or dance influence war time bombing created need for re-building programme or new schools built with new gymnasia or improved provision / facilities / equipment / apparatus / army assault courses or additions to playgrounds (By 1950s) better teaching or PE a profession or PE colleges training specialist teachers or need / desire for more autonomy for teachers (By 1950) female PE teachers demanded a different / more child centred approach social change or more equal opportunity for all or (strict) class system being eroded		Sub max 1 for reason for replacement Accept first answer only

Question		Answer	Marks	Guidance
1 (b)	5 marks for 5 of:		5	
	Activities associated with com	nunity sports festivals (sub max 4)		Sub max 4 for activities associated with early
	2. (other races or chases) chasing / catch riding races or chases	s or men's running races or smock races or women's races ng pigs with a soaped tail or jumping in sacks or donkey wheelbarrow races or cheese rolling		community sports festivals
		ery or stick fighting or cudgels or single sticks or r jousting or shin kicking or wrestling or bare fist fights or		
	blood not by scent or	where hares are pursued by hounds which chase by sight dog or cock fighting where dogs / fighting cocks are put in th or bear or badger baiting or other examples of baiting /		
	5. (games) mob football / c	ricket		
	ugliest face or j chasing the 'jing	ning contests where contestants try to pull the funniest / ngling matches where some are blindfolded and while gler' / whistling where contestants try to sing a tune while o make them laugh or climbing the greasy pole		
	7. (other) (tea) drinking co	ontests or swimming contests or frost fairs where any of ued on frozen rivers or throwing activities / highland games		
	Pre-industrial activity adapted to Accept first answer only	o athletics event in Public schools (sub max 1)		Sub max 1 for adaptation
	Pre-industrial activity:	Adapted to:		Accept first answer only.
	8. Steeplechase (on horsebac			Must have both pre-
1 1 1	9. Fox hunting	hare and hounds or paper chase		industrial activity AND
	10. Pedestrianism	cross country or distance running	1	athletics event to gain

Question		Answ	er	Mark	Guidance
1 (c)		one v stage three - techr echnical development or	nical development and values –Su values	1b 6	Accept opposites
	Technical Deve	elopment:			One mark for each technical
		Stage one	Stage three		development change up to sub max
	1. (facilities/ boundaries)	simple / natural facilities	specialist football pitches or clear boundaries / pitch		of four marks One mark for each value change up
		or e.g. the cloister at Charterhouse wall at Eton or no clear	sizes / markings		to sub max of four marks (Six marks max)
		boundaries or pitch sizes or markings			,
	2. (equipment)	simple / natural / non specialist equipment or 'jumpers' as posts	specialist equipment or footballs / corner posts / goal posts or kit		Accept <i>direct</i> changes e.g. 'in stage 3 there was more skill than' or <i>inferred</i> changes eg specialised kit was
	3. (rules)	rules differed from school to school or simple / unwritten rules or rules passed from generation to generation or rules passed on by word of mouth	(much more) codified or structured or rule based or (increasing) use of NGB rules / FA rules		introduced at stage 3. If a stage 2 development is given that is equivalent to stage 3 award the mark
	4.(spectators)	not a spectator attraction or if present assumed involved / playing	spectator attraction or inter house / inter schools games for spectators or (some) provision for spectators		
	5 (skill)	more force than skill or violent / dangerous	more skill than force or aggression channelled		
	6 (positions)	Large numbers or no designated positions	Smaller numbers or specialist positions		

Question		Answer		Mark	Guidance
	Values: submax	x 4			Do not accept 'lack of' values for
		Stage one	Stage three		stage 1
	7 (benefit)	enjoyment / fun or relieve boredom or no social control	social control or keep everyone occupied or use up energy		
	8 (character)	not for character development	games played to develop character or leadership		
	9 (ethics)	'every man for himself' or lack of teamwork / individuality	Teamwork or respect for team mates / opposition or loyalty or support / look after team mates		
	10 (morals)	'anything goes' or violence or cheating or dishonesty	honesty or integrity or sportsmanship or fair play or other examples / moral behaviour in football		
	11 (respect)	lack of respect for opposition	respect for team mates / opposition		
	12 (health)	no health emphasis	health benefits or 'healthy mind and body'		

(d)* Levels of Response	
Level 4 (18-20 marks) A comprehensive answer: detailed knowledge & excellent understanding detailed analysis and excellent critical evaluation well-argued, independent opinion and judgements which are well supported by relevant practical examples very accurate use of technical and specialist vocabulary high standard of written communication throughout.	At Level 4 answers are likely to show: detailed knowledge and excellent understanding of how increased free time and improved transport affected the emergence of rational recreations detailed coverage of then and good coverage of now (today) both free time and transport addressed with balance a well structured answer
 Level 3 (13-17 marks) A competent answer: good knowledge and clear understanding good analysis and critical evaluation independent opinions and judgements will be present but may not always be supported by relevant practical examples generally accurate use of technical and specialist vocabulary written communication is generally fluent with few errors. 	 At Level 3 answers are likely to show: good knowledge and clear understanding of how increased free time and improved transport affected the emergence of rational recreations good coverage of then and some coverage of now (today) both free time and transport addressed, but not necessarily with balance a competently structured answer
Level 2 (8-12 marks) A limited answer: Imited knowledge and understanding some evidence of analysis and critical evaluation opinion and judgement given but often unsupported by relevant practical examples technical and specialist vocabulary used with limited success written communication lacks fluency and contains errors. Level 1 (0 - 7 marks) A basic answer: basic knowledge and little understanding little relevant analysis or critical evaluation little or no attempt to give opinion or judgement little or no attempt to use technical and specialist vocabulary errors in written communication will be intrusive.	At Level 2 answers likely to show: Imited knowledge and understanding of how increased free time and improved transport affected the emergence of rational recreations at top of this level, some reference to now (today) – at bottom of this level 'now' may be omitted an unbalanced approach but at the top end of this level both free time and transport addressed attempt at structure At Level 1 answers are likely to show: basic knowledge and understanding of how increased free time and improved transport affected the emergence of rational recreations lack of reference to now / today lack of balance or only free time or transport addressed lack of structure

Question	Answer	Marks	Guidance
1 (d)*	Impact of increased free time and improved transport on the emergence of rational recreations from 1850 to today Indicative Content: Background: 1. Explanation that the first half of the century, (up to 1850), saw decline in opportunity and provision (for working class) • migration of lower classes from rural to urban areas (for regular work or pay) • loss of space / poor health / poverty / poor working and living conditions. • a more structured lifestyle / 'machine time' (rather than 'seasonal' time • 12 hour working day / 72 hour week / no time to 'play' 2. Increased free time and transport were crucial to the emergence of rational recreations from 1850 to today 3. Accept reference, as background / introduction, to other influential socio-cultural factors e.g. urbanisation / improved provision or technology / income / class / media / literacy / law and order / church acceptance / public school influence / factory teams / business opportunities Increased free time: 4. Because long working hours increasingly thought to be damaging to BAHL of workforce 5. shorter working day • 12 hour to 10 hour day / 72 to 60 hour week • more time 'to play' • more energy (after work) • improved BAHL of workforce 6. early closing movement • series of Bills through parliament that sought to reduce working hours • particularly for shop workers • e.g. Sheffield Wednesday FC • campaign for 8 hour day or 40 hour week 7. Saturday half day • Ideal 'slot' for development • spectators	20	Give KU for relevant knowledge points (usually main headings) Give DEV for relevant development points (usually bullet points) Give EG for relevant practical examples Always indicate the Level at the base of the answer (L1,L2, L3 or L4) Do not be limited by the indicative content give credit for other relevant points or developments. Do not give credit to irrelevant material

Question	Answer	Marks	Guidance
	e.g. football		
	8. (annual) week paid holiday		
	Between 1870 – 1890		
	First to skilled, then semi-skilled, then unskilled		
	9. seaside 'culture' developed		
	e.g. Brighton		
	inked to time and transport taking people to coast / excursion trips to seaside		
	10. (annual) excursion trips		
	provided by factory owner		
	to increase productivity		
	as genuine philanthropic gesture		
	(lead to) increased loyalty of work force		
	11. broken time payments		
	compensation for players who could not afford to miss work (and pay) to play		
	e.g. in Association Football or Rugby League		
	12. professionalism		
	a good opportunity or good job / chance to escape factory or urban deprivation /		
	improved lifestyle and regular wages - but not security		
	e.g. being a professional footballer		
	Improved transport:		
	13. Invention / development of (steam) train travel		
	train journey as enjoyable pastime in own right		
	14. increased speed meant less time needed for travelling / increased speed meant you could travel further		
	national or international travel		
	travel to away matches		
	15. (football) significance of third class tickets		
	so working class could travel		
	16. (football) spectators could travel to 'away' matches / they could support their teams		
	more avidly		
	less time need to get to 'away' matches		
	increased regularity of matches		
	17. (football) sporting heroes developed		
	linked impact of newspapers or literacy or education or sporting press		

Question	Answer	Marks	Guidance
	e.g. Bells Life		
	18. (football) leagues or cups or competitions established		
	19. standardised set of rules needed / codification needed		
	 ex public school boys (helped to) set up National Governing Bodies e.g. FA (1863) 		
	Accept accurate reference and developments to impact of increased free time and/or		
	transport on case studies and other rational recreations, for example:		
	20. athletics		
	transport enabled athletics meets to become popular (summer) attractions		
	Deerfoot (American Indian) able to travel to UK		
	spectators could travel to watch either of above		
	21. cricket		
	reference to International travel		
	impact on England v Australia matches		
	reference to the Ashes mythology		
	William Clarke as cricketing entrepreneur		
	resultant business opportunities		
	22. tennis		
	establishment of Wimbledon competition		
	travel by middle class to 'garden parties' / tennis as a social occasion		
	Also:		
	23. horse racing		
	horses transported to venues (instead of walking) so less tiredso able to race more		
	24. cycling		
	 people could 'get back to' or explore the countryside (having taken bicycles on trains) 		
	better roads in (late) 19 th century lead to cycle road racing		
	More recently/today – accept other relevant points		
	Increased free time:		
	25. impact of flexible free time through 'flexitime' at work		
	26. issues related to unemployment or redundancy or economic recession		
	27. But - impact of Sunday trading		

Question	Answer	Marks	Guidance
	Traditional holidays losing significance for sport		
	28. But - high demands or long hours at work.		
	But - in contemporary society some are 'money rich but time poor.'	<u> </u>	
	Improved transport		
	29. variety of transport options		
	e.g. cheap internal and European flights		
	e.g. inter-city coach travel		
	e.g. 'special' trains or flights or coaches for big matches		
	e.g. helicopter use for some players or high earning spectators living distant		
	from club	<u> </u>	
	30. Increase in competitions		
	Mid week matches		
	Increase in international competitions	_	
	31. But - increased petrol costs	<u> </u>	
	32. But - increased road congestion		
	33. But - impact of closure of some inner city venues		
	e.g. football / rugby		
	34. But - 'out of town' stadia – need for transport		
	e.g. Reading or other suitable example		

Section A - Comparative Studies (Option A2)

Que	estion		Answer	Marks	Guidance
2 ((a)	5 marks for 5 of:		5	
		Popularity of Aus	stralian Rules Football in Australia		
		1. (Australian)) Adapted from Aboriginal game		
			or links to indigenous population		
			or links to heritage		
			or distinctly Australian game or national pride		
		2. (cricket)	Links with cricket helped development		
			or started as winter training game for cricketers		
			or use of cricket pitches		
		3. (People's g	' ' '		
		egalitarian)			
			or inclusive game		
			or opportunity for minority or ethnic group		
			or game for players and spectators from all social backgrounds		
			or suits / links with egalitarian culture		
			or Aboriginals well represented		
			or disproportionate number of Aboriginals at top level		
			or supports notion of Australia as 'land of fair go'		
		4. (frontierism	'		
			or frontier / pioneering spirit		
			or reflects need to work together in 'hostile environment'		
			or manly image.		
		5. (space)	Plenty of space		
		0 (1)	Or large open spaces throughout the country	_	
		6. (National)	Spread beyond roots in Victoria		
			or played in all states		
		7 / 1: /	or national competitions have helped spread the game		
		7. (media/com	, ·		
			or exciting to watch		
			or good product for media		
			or commercial breaks during games an opportunity for commercialism		
			or highly commercialised(at top level)		
			or opportunities for commercialism / business sponsorship		

Question		Answer	Marks	Guidance
	8. (Draft)	Draft system helps clubs the following season or gives low finishing clubs first opportunity to select the best players.		
	9. (fame/fortune)	Opportunity for fame		
		or fortune for top players or influence of role models		
	10. (women)	Promotion of female participation		
		or governing bodies promote female participation		
		or can be played by all body types.		
	11. (schools)	Played extensively in schools		
		or played by boys and girls in school or focus on fair play in schools		
	12. (pathway to top)	Extensive pathway programmes		
	(or opportunity for progression		
		or ASC initiatives		
	13. (season)	Long season		
		or 8 month season or always at forefront of people's minds		
		or always at foremone or people's fillings		

Question	Answer	Marks	Guidance
5 marks for 5 of:			
Outline of Australia cul 1. (Bush culture) 2. (Equality/democracy) 3. (Tradition) 4. (Fair play) 5. (Teamwork) 6. (Individuality) 7. (Competitiveness) 8. (Participation) 9. (Political) 10. (Pride)	(legacy of) bush culture which is showing determination / courage / persistence or culture of coping in a difficult environment. Australia as an egalitarian society therefore it is democratic or equal or social class and privilege are (allegedly) irrelevant or Australia as (allegedly) the land of the fair go therefore racism or discrimination does not exist o/ has been overcome or Australia is democratic therefore citizens are encouraged to be active in political / civic life / enjoy human rights or Australia is a country where laws and procedures apply equally to all citizens Australia as a social melting pot which is a blend of different peoples / backgrounds / immigrants or Australia is (now) committed to multi-culturalism / is a multi-cultural society meaning that many / different races / ethnic groups / cultures exist together Long tradition of involvement in sport with many sports adopted from Britain. Fair play / sportsmanship / justice is respected / admired / is important to (the sporting ethos of) Australia Teamwork / co-operation / joint effort is respected / admired Individuality / independence / self-reliance is respected / admired Competitiveness / the desire to achieve / winning is important to many Australians Taking part in sport /physical activity is fashionable / high status / important for health Government values participation in sport and have involvement in both policies and funding. Australians have a view that sport is an expression of national pride	5	Sub max 4 for Australia Do not accept identification of points such as 'bush culture' on their ownan impact is required.

Question		Answer	Marks	Guidance
	Describe how <u>or</u> (Sub max 1 mark	ne of these values originates from Australia's historical relationship with UK		
	11. (value)	Fair play / teamwork / competitiveness / participation / democracy from games culture of (nineteenth century) English public schools which was taken to and then copied in Australia		

Q	uestion		Answer	Marks	Guidance
2	(c)	5 marks for 5 of:		5	Sub max 3 for description of the
		Strategies to encour	age mass participation in the USA.		strategies and provision
		(sub max 3 from eitl			
		1.(Equality/Title IX)	Title IX or equality of provision or equality of funding		Sub max 3 for
			or adapted activities (for disability)		explanation of fewer
		2. (role models)	Promotion of role models to encourage participation		opportunities in the USA
		3. (community)	Community provision		
			or initiatives such as midnight leagues/ jogging clubs		
		4. (named	Accept named contemporary community initiative/s eg Hook a Kid on		
		initiatives)	golf		
		5. (schools)	Schools provide intra-mural sport		
			or through PE programmes in schools		
		6. (camps)	(private / state) summer camps for physical activities / weight		
			management		
		7. (children's'	little league or Pop Warner or Biddy basketball or Peewee baseball or		
		leagues)	other example of little league/community sports teams for children		
		8. (facilities)	availability of (private) gyms/gym at work/country clubs		
			opportunities in USA (sub max 3)		
		9.(club)	Less community/club provision		
			or community/taster days in USA limited to private clubs e.g. gym		
			culture		
		10.(mass	greater emphasis on excellence / winning in USA		
		participation)	or USA selection by professional sport		
			or scholarships in USA		
		44./	or more drop out in USA		
		11.(money)	High level sport more commercial in USA		
		40 (top dition)	or money to be made from participation as well as spectatorism in UK		
		12.(tradition)	Tradition of participation in UK		
			or tradition of spectatorism in USA		
		12 (initiatives)	or more common to watch than play in USA Government / school / NGB		
		13.(initiatives)			
			or other initiatives for participation and healthy lifestyles in UK or Home country council		
			or target group work to increase participation in UK		
<u> </u>			or target group work to increase participation in ok		

Question		Answer		
	14. (NC)	National curriculum for schools / exams in PE emphasise participation and BAHL in UK		
	15.(training)	Training opportunities via NGB / JSLA/ CSLA / HSLA	1	
	16.(mini games)	Mini versions of major games such as Kwik Cricket in UK		
	17.(funding)	Lottery funding		
		or funding from government agencies/other organisation in UK		

(d)* Levels of Response	
Level 4 (18-20 marks)	At Level 4 answers are likely to show:
A comprehensive answer:	 detailed knowledge and excellent understanding of many
 detailed knowledge & excellent understanding 	types of cultural factors that impact on excellence in sport in
 detailed analysis and excellent critical evaluation 	the USA and the UK.
 well-argued, independent opinion and judgements which are well 	Mostly direct comparisons of cultural factors
supported by relevant practical examples	 high quality independent opinion/judgement re the similarities
 very accurate use of technical and specialist vocabulary 	and differences
 high standard of written communication throughout. 	a well-structured, balanced answer
Level 3 (13-17 marks)	At Level 3 answers are likely to show:
A competent answer:	 good knowledge and clear understanding of several cultural
 good knowledge and clear understanding 	factors that impact on excellence in the USA and the UK
 good analysis and critical evaluation 	 some direct comparisons which show good knowledge of the
 independent opinions and judgements will be present but may not 	cultural factors that influence sporting excellence.
always be supported by relevant practical examples	some independent opinion/judgement re the similarities and
 generally accurate use of technical and specialist vocabulary 	differences
 written communication is generally fluent with few errors. 	a competently structured, balanced answer
Level 2 (8-12 marks)	At Level 2 answers are likely to show:
A limited answer:	 limited knowledge and understanding of a few cultural factors
limited knowledge and understanding	that impact on excellence in sport in the USA and the UK
 some evidence of analysis and critical evaluation 	 some attempt at a comparison of the cultural factors
 opinion and judgement given but often unsupported by relevant practical examples 	 a description of cultural factors rather than a focus on the impact
 technical and specialist vocabulary used with limited success 	have a basic structure and lack balance
 written communication lacks fluency and contains errors. 	Thave a basic structure and lask balance
Level 1 (0 – 7 marks)	At Level 1 answers are likely to show:
A basic answer:	show basic knowledge of very few cultural factors
basic knowledge and little understanding	make little or no attempt to compare the cultural factors
little relevant analysis or critical evaluation	 little description of the factors rather than focus on their impact
little or no attempt to give opinion or judgement	on sporting excellence
 little or no attempt to use technical and specialist vocabulary 	 lack structure and balance.
 errors in written communication will be intrusive. 	

Q	uestion	Answer		Marks	Guidance	
2 (d)*	(d)*	in USA and UK. (hist SIM = similarities be	torical, geographical, social, valu	s impacting on excellence in sport es)	20	Give KU for relevant knowledge points (usually main headings) If KU a
			In USA	In UK		comparison use
		Historical factors 1. (Pro/am) 2. (Frontier spirit) 3. (Invention) 4. (public schools)	No tradition of amateurism Professionalism embraced in major sports Frontier spirit/pioneering spirit creates competitive drive Players as gladiators Legacy in team names e.g. forty niners Isolationist policy UK sports marginalised USA sports/'big four' promoted Limited tradition or influence of schools High school sport mimics pro game Win ethic promoted	DIFF: Tradition of amateurism Professionalism resisted by many sports e.g. rugby union Professionalism embraced in e.g. rugby league DIFF: No frontier spirit Butmob games encouraged physicality/ physicality needed for success DIFF: Many sports invented/created in UK Colonialism/sports taken to USA UK tend to reflect on former glories DIFF: Influence of C19 public schools Importance of fair play Participation ethic/all rounder High status for games		highlight annotation Give DEV for relevant development points (usually bullet points) Give EG for relevant practical examples Always indicate the Level at the base of the answer (L1,L2, L3 or L4) Do not be limited by the indicative content give credit for other
			High status for elite performers	players		relevant points or developments.

Question		Answer		Marks	Guidance
	Geographical factor				Do not give
	5. (Population)	 Population over 300 million Concept of large country aiming high Huge talent pool to draw from 	 DIFF: Population approx 60 million Concept of small country aiming low Smaller talent pool available 		credit to irrelevant material
	Political factors				
	6. (system)	Decentralised system Government not involved in policy decisions Governing body control	SIM: Decentralised system Government not (directly) involved in policy decisions Governing body control of some sports Role of UKSI		
	7. (funding)	Limited government/federal funding • Private funding/sponsorship	SIM: Limited government funding Lottery funding Private funding/sponsorship		
	8. (economy)	 Capitalist economy Capitalism drives competitiveness/pursuit of excellence 	DIFF: Mixed economy		
	9. (golden triangle)	Link between commercialism and sport Golden triangle Sport, sponsorship and media 4 hour media coverage	SIM: Increasing commercialisation of sport UK following USA model		
	10. (pathway)	Clear pathway to excellence High School to College/University Scholarships Special admit programmes (for less academic students)	Different pathways to excellence Some High Schools are centres of excellence Role of academies/apprenticeships Institutes of sport/link to Universities		

Question		Answer		Marks	Guidance
		Pro-draft to professional sport	Some scholarships availableNo draft system		
	Social factors				
	11 (Rags to riches)	Rags to riches Pursuit of excellence brings fame/fortune American Dream High profile role models (mainly men still) E.g. LeBron James	SIM: Excellence brings fame/fortune Dominance of Association Football Less so in other sports High profile role models (mainly male)		
	12. (Opportunity)	Land of opportunity/land of the free Opportunity for all Pluralism	SIM: Opportunity for all Multicultural society		
	13. (Discrimination)	Discrimination still exists Hierarchy Hegemony WASP dominance Restricted opportunities for minority groups Ref. stacking/centrality	SIM: Discrimination still exists Class system Restricted opportunities for minority groups		
	14. (Assimilation)	Assimilation/athletes identifying with and being accepted by USA Representing USA at Olympics	SIM: Athletes identifying with and being accepted by UK Representing UK at Olympics E.g. Mo Farah		
	Values				
	15. (tradition)	Lack of tradition of mass participation • Focus is on elite performance	DIFF: Tradition of mass participation Widening base of performance pyramid		

Question		Answer			Guidance
	16. (Lombardianism)	Lombardian/win ethic is predominant value Ref. Vince Lombardi Counter culture ethic evident in activities such as jogging	DIFF: Participation/fair play ethic predominant Increasing shift towards Lombardianism at elite level E.g. 'Diving' in football.		
	17. (Radical)	 Equal importance between taking part and winning Many elite performers show this ethic E.g. Admit 'miss' in golf even if not seen by opponent 	SIM: Many elite performers follow radical ethic • Credit suitable example		
	18. (little leagues)	Little leagues/sport for young people driven by Lombardianism Sports (mainly) played on full size pitches / few mini versions of games	 DIFF: Junior sport driven by participation as well as performance Some junior sport driven by Lombardianism Mini versions of games used to develop skills over athletic ability 		
	19. (Elitism)	Elitist system/elitism dominant	DIFF: Elitism not a traditional value/reluctant to adopt elitist policy		
	20. (Zero-sum)	Zero-sum mentality/ethic No draws / must be a winner	DIFF: Draws allowed Playing for a draw an acceptable tactic Some sports/cup ties follow zero-sum ethic		

Section B - Sports Psychology (Option B1)

C	uestion		Answer	Marks	Guidance
3	(a)	4 marks for 4 of:		4	Sub max 2 for social learning
		1. (Observe and copy)	al learning (sub max 2) We (observe and) copy/emulate behaviour (of others) or copy significant others or copy role models		Sub max 2 for interactionist • Do not accept a list. There
		2. (reinforcement)	Learning requires reinforcement or vicarious reinforcement		must be an attempt at a description for marks to be awarded.
		Description of inter	ractionist (sub max 2)		 Do not accept B=f(PE) for point 3 (must describe)
		3.(trait – environment)	(Personality determined by the) interaction/function/relationship between personality/traits and the situation/environment or personality interacting or reacting to the environment/situation		Do not accept interactionist is a combination of trait and social learning (must describe)
		4. (Changes in behaviour)	Behaviour changes depending on the demands of the situation/environment/role or personality is not predictable/stable.		Accept a practical example as a description

Question		Answer	Marks		Guidance
3 (b)	5 marks for 5 of: Reference to question : Explain why people adop healthy lifestyle.	t different attitudes towards a balanced, active and	5	•	Sub max of 3 marks for no BAHL examples Sub max of 4 marks for one example
	1.(cognitive)	Because people are educated / have knowledge/beliefs/cognitive (responses) about what is good/healthy for them Eg people know which foods are healthy		•	For max of 5 marks must have at last two practical BAHL examples (question asks for examples
	2.(affective)	Because of an emotional/affective response or because they enjoy or do not enjoy a healthy lifestyle Eg they enjoy regular exercise		•	Accept practical example equivalents for each point
	3. (Significant others)	The influence of significant others or role models or celebrities or influences from friends/peers/teachers/coaches Eg Your coach follows a healthy diet		•	Accept negative aspects if given for each point - for example: some do not believe in a healthy lifestyle (Pt1) or some enjoy
	4.(group)	To feel you belong or feel you are accepted by a group Eg you exercise to belong to an exercise class			dysfunctional or unhealthy behaviour (pt2)
	5.(culture/religion)	Through socialisation or cultural norms or cultural influences or religious influences or upbringing Eg It is more acceptable to avoid smoking in UK culture			
	6.(competition)	To be the best or competitive factors or to win or to avoid losing Eg you want to get a better time for your morning jogging circuit			
	7.(Media)	Media influences or examples of media influences Eg a media campaign on the negative aspects of taking drugs encourages you to avoid taking drugs			

Question		Answer	Marks	Guidance
	8. (Opportunity/ availability	Attitudes affected by the availability of facilities / gym access / outdoor space / equipment / access arrangements (if have a disability) or affordability of BAHL/activities		
	9.(Previous experiences)	Previous experiences or what has happened before (will shape attitudes) or if successful more likely to have a positive attitude or if unsuccessful a negative attitude Eg you succeeded in completing a whole exercise routine last week		
	10.(perceptions)	The perception of our own ability or you think you are good enough or you think you are not good enough or you have high/low selfesteem (can shape attitudes) Eg you think that you are able to carry out an exercise programme		
	11.(Attributions > Learned helplessness)	Attributions / reasons for failure are internal or dispositional can lead to learned helplessness Eg you give up exercise because you feel you cannot carry out the skills needed		
	12.(Attributions > mastery orientation)	Attributions / reasons for success are internal or dispositional lead to mastery orientation Eg you are fit because you have shown determination		

Question		Answer	Marks	Guidance
3 (c)	6 marks for 6 of:Using practice behaviour in sport.	tical examples, describe the possible causes of aggressive	6	Sub max 3 for points made without practical examples
	1. (innate)	Innate/genetic causes/determinants or behaviours are traits or we can't help our behaviour because it is natural /genetically determined/spontaneous Eg lash-out at an opponent in rugby when feeling threatene		Sub max 5 marks for points made with only one practical example
	2. (frustration / arousal)	Because of blocked goals or frustration or high arousal or need for catharsis or to get rid of frustration or (perception) that ability is poor /effort by teammates or a cause of frustration e.g. perceived /actual unfairness or refs' / officials' poor decisions. Or losing / poor performance Eg the poor referee's decisions causes a player to hit out a		For full 6 marks to be gained at least two practical examples must be given
	3. (copying others)	an opponent in rugby. Copying others (who are role models/significant others) or via social learning / vicarious learning Eg watching a premier league footballer and copying violent behaviour.		
	4. (tribal/group/culture)	Wanting to be accepted by a group or group norms dictate such behaviour/(tribal) instincts or feeling more protected if following group behaviour or cultural influences or it is expected or it is a normal behaviour of the culture. Eg to be accepted within your netball team you show aggressive behaviour.		
	5. (game norms)	Game determinants or nature of the game or expected/norms in the game eg it is expected to be violent in ice hockey.		
	6. (cues)	Triggers / cues / signals / stimuli from the environment elicit/cause an aggressive response or the crowd		

Question		Answer	Mark	ks Guidance	
		or provocation eg chanting by the opponents supporters in a tennis match might elicit aggressive behaviour or having a stick in your hand.			
	7. (retaliation/revenge)	Getting your own back or retaliating after experiencing the aggression of others eg you are elbowed in a football game so next time you tack that opponent you seek revenge and elbow him back.	le		
	7. (event importance)	Event importance or competitiveness or need to/pressure to win or rewards or as an instrument to gain success. or (local) derby games / rivals eg. a crucial end of season football match might cause high emotions and therefore aggression.			
	8. (pressure from others)	Pressure from others or obeying orders/tactics or others' expectations. Eg the coach of a rugby team orders his forwards to intimidate through physical violence.			
	9. (Alcohol / drugs)	Alcohol / drugs may affect the body/brain or your inhibitions are lowered or sense of right/wrong is confused eg An athlete might take steroids but can't help but be aggressive towards the officials.			
	10. (other external influences)	Pressures experiences from outside the game or life baggage / events / personal problems			

(d)* Levels of Response	
Level 4 (18-20 marks)	At Level 4 answers are likely to show:
A comprehensive answer:	All elements of Vealey's model are addressed in excellent detail
detailed knowledge & excellent understanding	Practical example used to explain all elements of the model
detailed analysis and excellent critical evaluation	An excellent awareness of the interaction between trait and state
well-argued, independent opinion and judgements which are well	Detailed explanation of how subjective outcomes influences state
supported by relevant practical examples	sport confidence
 very accurate use of technical and specialist vocabulary 	A wide and well explained range of methods to raise self-efficacy
 high standard of written communication throughout. 	A very well-balanced answer between explanation of model and
	description of methods
Level 3 (13-17 marks)	At Level 3 answers are likely to show:
A competent answer:	Most elements of the model addressed in detail
good knowledge and clear understanding	Practical example used to explain the majority of the model's elements
good analysis and critical evaluation	Showing some awareness of the interactions within the model
 independent opinions and judgements will be present but may not 	Well explained range of methods to raise self-efficacy
always be supported by relevant practical examples	Good explanation of how subjective outcomes influences state sport
generally accurate use of technical and specialist vocabulary	confidence or relationship between outcomes and confidence is clear
written communication is generally fluent with few errors.	A fairly balanced answer between explanation of model and
	description of methods
Level 2 (8-12 marks)	At Level 2 answers <u>are likely</u> to show:
A limited answer:	Some areas of the model are addressed in some detail
limited knowledge and understanding	Practical eg used but only related to a minority of theoretical points
some evidence of analysis and critical evaluation	At the lower end of the mark range part of the question may not be
 opinion and judgement given but often unsupported by relevant practical examples 	answered but what is attempted is sound or much of the model is simply repeated
technical and specialist vocabulary used with limited success	A narrow range of methods to raise self-efficacy
written communication lacks fluency and contains errors.	A lack of balance with more description of methods than explanation
, and a second s	of the model
Level 1 (0 – 7 marks)	At Level 1 responses are likely to show:
A basic answer:	Miss out much of the model's elements and interactions
basic knowledge and little understanding	Practical example missing for model or ineffectively used
little relevant analysis or critical evaluation	Some methods to raise self-efficacy inappropriate or repetitive
little or no attempt to give opinion or judgement	
little or no attempt to use technical and specialist vocabulary	
errors in written communication will be intrusive.	

Question	ì	Answer		Marks Guidano	
3 (d)*	Refe	ative Content: rence to question : Using one example from sport, explain Vealey's model of sports idence.	20		Give KU for relevant knowledge
	2.	Objective sport situation is eg a penalty kick in football Trait sport confidence (SC-Trait) is innate / born with it underlying potential		•	points (usually main headings) Give DEV for relevant
	3.	 stable eg the football player might have an in-built high level of confidence SC-Trait affects state sports confidence(SC-State) / self-efficacy eg the football players confidence in taking the kick depends on SC-Trait levels 			development points (usually bullet points) Give EG for
	4.	 competitive orientation is the level of competitiveness that the performer may have set challenging goals eg the football player is naturally very competitive and really wants to score the penalty. 			relevant practical examples
	5.	State sports confidence (SC- State) is the confidence you have in an actual/specific situation or environment Is changeable e.g. the football player has high confidence in scoring the penalty kick.			Always indicate the Level at the base of the answer (L1,L2, L3 or L4)
	6.	 behavioural responses are the actions or performance outcomes eg the football player kicks the ball at the goal 			Do not be limited by the
	7.	 The subjective outcomes are how the performer judges or interprets the outcomes/performance. Eg the football player interprets that a good goal has been scored from the penalty and the goalkeeper was well beaten 			indicative content give credit for other relevant points
	8.	 The subjective outcomes affects future SC-Trait / future competitiveness eg the football player's view of the goal may make him more confident generally and more competitive 			or developments Do not give
	9.	 The subjective outcomes therefore eventually affect state sports confidence (SC-State) how you interpret your actions affects your confidence in the future. SC-trait and competitiveness and SC-State all affect confidence/self-efficacy 			credit to irrelevant material

Question		Answer	Marks	Guidance		
		Positive subjectivity leads to mastery orientation				
	• 1	Negative subjectivity leads to learned helplessness				
	Describe the	e methods that might be used to raise self-efficacy in sports performance.				
	10.	Encourage attribution				
	(attribution)	of any previous failure or learned helplessness to controllable/internal factors				
		or unstable factors				
		or don't blame yourself / give other reasons for past failures				
		Eg lack of effort/inappropriate goals in netball				
	11.	Give verbal persuasion				
	(reinforcem	encouragement / praise / reward				
	ent	positive reinforcement				
		Eg The coach praises a young volleyball players serve to raise confidence				
	12.(control	Control arousal				
	arousal /	Give them anxiety or stress management strategies				
	stress	emotional control or control arousal				
	manageme	imagery or mental practice / rehearsal or visualisation				
	nt)	Positive thinking /self talk or negative thought stopping				
		Somatic strategies to calm down e.g. biofeedback or PMR				
		Eg Encourage the sprinter to imagine winning the race				
	12.	Vicarious experiences				
	(Vicarious)	See others achieve				
		Show others of similar ability succeed.				
		Show role models to inspire The three lines had a self-dependent of a significant bilities.				
		Eg the diver lacked confidence but saw another diver of a similar ability dive off the ten board and this raised ber confidence.				
	13.	dive off the top board and this raised her confidence Performance accomplishments				
	(success)	Give early success to raise confidence				
		encourage small achievable goals at first / goal setting				
		highlight previous success				

Question	Answer	Marks	Guidance
	 practice / train hard / learn skills / strategies Eg Remind the discus thrower that he has reached a certain distar before 	nce	
	 14. (Educate) Educate or inspire or teach appropriate skills or tactics show what the player can do to enhance performance. Eg the coach teaches the hockey player new stick skills to beat an opponent 	n	
	 Show others who are less good or who are less able or who also lack confidence. Show them that they are not abnormal or that lack of confidence is be ashamed of. Eg Show a tennis player a video of other players who have been successful but who show low confidence levels 		

Section B - Biomechanics (option B2)

Q	uestion		Answer	Marks	Guidance
4	(a)	1 mark for		5	Sub max 1 for definition
		Definition of Impuls	e		Sub max 4 for explanation
		1. (Impulse)	Force x time / Ft Or change in momentum Or product of force and the time force is applied		
		Explanation of grap	h (sub max 4)		
		2. (1 st Section)	Impulse is negative		
		3. (1 st Section)	Force acting on sprinter is opposite to the direction of motion/ force opposes motion/ foot plant in front of the line of gravity		
		4. (1 st Section)	Forward momentum of sprinter decreases / deceleration.		
		5. (2 nd Section)	<u>Impulse</u> is positive		
		6. (2 nd Section)	Force acting on sprinter is in the same direction as the direction of motion/ force assists motion/ foot plant behind the line of gravity		
		7. (2 nd Section)	Forward momentum of sprinter increases / acceleration.		
		8. (Overall force)	Positive/forward force>negative/backward force or net force positive/forward		
		9. (overall time)	Positive time>negative time (force is applied)		
		10. (Overall impulse)	Positive impulse>negative impulse or <u>net</u> impulse is positive.		
		11. (Overall)	Causes acceleration in early part of race.		

C	Question		Answer	Marks	Guidance
4			Sub max 3 marks for diagram AR AR Biagram must show 1. (Forces) Air resistance longer than Weight	Marks 5	Guidance Sub max 3 for diagram Sub max 3 for explanation
			2. (Parallelogram) Parallelogram using forces in 1 (dotted		
			lines)		
			3. (Resultant / net force shown correctly. force)		

Question		Answer	Marks	Guidance
	Explanation of how net to	force causes deviation in Flight Path. (Sub max 3)		
	4. (Description)	Shuttle decelerates or follows a non-parabolic or asymmetric flight path		
	5. (Explanation)	Resultant / net force is (nearly) same direction as air resistance / closest to air resistance/ opposite direction of motion		
	6. (Explanation)	Resultant / net force shows direction / magnitude (size) of acceleration of shuttle		

stion		Answer	Marks	Guidance
c)	5 marks for 5 of:		5	Sub max 3 for moment
	Moment of Inertia (sub ma	ax 3)		of inertia
	Sub max of one mark for	definition		
				Sub max 3 for
	1. (Moment of	Resistance of a rotating body to change its state of angular		explanation of recovery
	Inertia)	motion (rotation) / resistance of a body to start or stop rotating /		phase
		angular or rotational resistance.		
	2.	is the rotational equivalent to inertia.		
	3.	\sum mr ²		
	Sub max two marks for			
	4. (Mass)	Depends on the mass of an object		
	5. (Mass)	Greater the mass of an object the greater is its MI or opposite.		
	6. (Distribution of Mass)	Depends on the distribution of mass from the axis of rotation		
	7. (Distribution of	The further the mass is away from the axis of rotation the		
	Mass)	greater the MI or opposite		
	8. (Force)	The greater the MI the greater the (moment of) force / torque		
		required to increase or decrease rate of spin / rotation/ angular acceleration		
	Recovery phase of leg ac	tion (sub may 3)		
		· ,		
	9.	(Flexed knee means that the) mass of the leg is closer to the		
		axis of rotation (hip)		
		or mass distribution decreases		
	10.	Therefore MI decreases /is lower		
	11.	Less force is required / easier to move leg through recovery stage		
	12.	Recovery can be quicker / increases stride rate/ leg brought		

(d)* Levels of Response	
Level 4 (18-20 marks) A comprehensive answer: detailed knowledge & excellent understanding detailed analysis and excellent critical evaluation well-argued, independent opinion and judgements which are well supported by relevant practical examples very accurate use of technical and specialist vocabulary high standard of written communication throughout.	 At level 4 answers are likely to show: Accurate sketching of graph. Correct calculations using appropriate formulae and units. Detailed understanding and application of Newton's Laws in interpreting the speed/time graph. Detailed analysis of a wide range of methods used to overcome air resistance / fluid friction with relevant sporting examples.
 Level 3 (13-17 marks) A competent answer: good knowledge and clear understanding good analysis and critical evaluation independent opinions and judgements will be present but may not always be supported by relevant practical examples generally accurate use of technical and specialist vocabulary written communication is generally fluent with few errors. 	 At level 3 answers are likely to show: Accurate sketching of graph and correct calculations but answer may not always have either the appropriate formula or units. Good understanding and application of Newton's Laws but answer may not always be accurate in interpreting the speed/time graph. Good analysis of a range of methods used to overcome air resistance / fluid friction with some relevant sporting examples.
Level 2 (8-12 marks) A limited answer: Imited knowledge and understanding some evidence of analysis and critical evaluation opinion and judgement given but often unsupported by relevant practical examples technical and specialist vocabulary used with limited success written communication lacks fluency and contains errors.	 At level 2 answers are likely to show: Good shape of graph but axes may not be fully labelled. Some aspects of calculations correct. Some understanding of Newton's Laws but limited application to shape of the graph. Some methods identified that overcome air resistance / fluid friction with a few sporting examples.
Level 1 (0 – 7 marks) A basic answer: • basic knowledge and little understanding • little relevant analysis or critical evaluation • little or no attempt to give opinion or judgement • little or no attempt to use technical and specialist vocabulary • errors in written communication will be intrusive.	 At level 1 answers are likely to show: Show some correct aspects of the graph or some correct aspects of calculations. Identify some of Newton's Laws but show limited application. Identify some methods that overcome resistance or give a few sporting examples.

Que	estion	Answer	Marks Guidance		
4 (d)*	Indicative Content: Reference to question Speed/time graph	20	Give KU for relevant knowledge points (usually main headings)	
		Accept a sketch graph Speed / ms-1 3.5		Give DEV for relevant development points (usually bullet points)	
		2.5		 Give EG for relevant practical examples 	
		1.5		 Always indicate the Level at the base of the answer (L1,L2, L3 or L4) 	
		0.5 0 0.5 1 1.5 2 2.5 3 3.5 4		Do not be limited by the indicative content give credit for other relevant points or developments.	
		Time / secs		Do not give credit to irrelevant material	

Question		Answer			Guidance
		Speed/time graph)	Correct axes		
	2. ((Acceleration)	Acceleration = final-initial velocity/time or final-initial speed/time a = v - u / t or a = 3.0 - 0 / 0.5 • a = 6ms ⁻² (m/s/s or m.s ²)		
	3. ((Net force)	F = ma or F = 80(kg)x6(ms ⁻²) • 480 Newtons (N)		
	4. ((Newton 1)	An object will remain at rest or move with uniform motion / constant velocity/ constant speed unless acted upon by an external / unbalanced force.		
	5. ((Newton 2)	 Law of acceleration or momentum The acceleration / rate of change in momentum of an object is directly proportional to the (net) force acting upon the object and acts in the same direction as the (net) force (applied). 		
	6. ((Newton 3)	 Law of Reaction For every action (force applied) there is an equal and opposite reaction (force). 		
	7. ((1 st part of graph)	 shows acceleration Newton 1 suggests that because there is an acceleration there must be an external / unbalanced force acting on the swimmer / swimmer has generated/applied a force Newton 2 suggests that the acceleration is large due to a large (net) force acting on/generated by the swimmer. 		
	8. ((1 st part of graph)	shows net forward force acting on swimmer Newton 3 suggests that the swimmer pushes/(applies an action force)backwards against the wall and the wall applies an equal and forwards (reaction) force on the swimmer.		
	9. ((2 nd part of graph)	 Newton 2 suggests that a (net) force must be acting against the swimmer / opposite direction. 		

Question		Answer			Guidance
			 Fluid friction / Water resistance Newton 1 suggests that there must be an external / unbalanced force acting on the swimmer 		
	10.	(3 rd part of the graph)	 shows constant speed Newton 1 suggests that all forces are balanced as the swimmer is moving with constant velocity/speed. Newton 2 suggests the net force acting on the swimmer is zero as there is no acceleration 		
	11.	(Overcoming air resistance / fluid friction / drag)	 Streamlining Creating smooth flow around the performer / reducing (turbulent) drag. Reducing profile drag / turbulence behind the performer 		
	12.	(clothing)	Making surface of performer smoother Use of special swimwear / hats / shaving Use of special / lycra suits for skiers or eq		
	13.	(density)	Reducing friction between air / water and performer. Reduction in density of water in swimming pools Performing at altitude		
	14.	(frontal cross- section)	 Reducing frontal / forward cross sectional area of performer Lying flatter in the water Maintaining narrow body shape / tuck shape in skiing / cycling or eq. 		
	15.	(shape)	Changing shape / 'tear drop' shape / 'aerofoil' shape / changing action. Dolphin action been added to all techniques not just butterfly / bike design Helmets in cycling / speed skiing		
	16.	(surface effects)	Reducing surface effects / wave drag • Swimming underwater as far as possible / as far as rules allow.		
	17.	(speed)	Reducing speed/velocity Not beneficial to performance/ must reduce AR/FF in other ways		

Section B - Exercise and Sport Physiology (Option B3)

Q	uestion		Answer	Marks	Guidance
5	(a)	1 marks for:		4	Sub max 1 for definition
		Sub max 1 for the def	finition		Sub may 2 for factors offseting
		or su	ability to take in, (transport) and use oxygen ustain prolonged periods of sub maximal work		Sub max 3 for factors affecting VO ₂ max.
			aximum volume of oxygen inspired and utilised per minute O_2 max		Do not accept age or gender as factors affecting VO _{2max} (in question)
		Sub max 3 for factors	s affecting VO ₂ max; mark first three only		question
			Size of lungs / lung volume / elasticity of lung tissues / strength of respiratory muscles or eq.		
		3. (cardiac factors)	Size of heart / stroke volume / cardiac output or eq.		
		factors)	Elasticity of arteries / number of red blood cells (RBCs)/capilliarisation / blood volume / haemoglobin content or eq.		
			Muscle fibre type/ more Type I/SO and Type IIa/FOG oxidative fibres increase VO ₂ max/		
		6. (cellular factors)	myoglobin stores/ number of mitochondria or eq.		
			Training/ altitude training / lack of training		
		8. (genetic make- up)	genetic make-up / hereditary		
		9. (environmental factors)	altitude or climate or air pressure		

Q	uestion		Answer		Marks	Guidance
5	(b)	6 marks for 6 of: Sub max 3 marks for 6	description of interval training		6	Sub max 3 for description of interval session
		1. (type/e.g. exercises)	Repetition running/ circuits/s exercise	huttles/ skipping or eq. example		Sub max 3 for
		2. (work interval/ duration)	3-5 minutes a station/ 3 minu	utes plus		explanation of adaptations
		3. (session duration)		/ FO 700/ \/O		Accept activities in
		4. (intensity) 5 (work:rest/relief ratio)	Low-moderate/60-80 % HR _m 2:1/ 1:0.5/ work being double 1:1	e the rest/ equal to work:rest/relief /		point 1 that can be sustained for at least 3 minutes or 800m +
		Sub max 3 marks for e	explaining the adaptations Adaptation	BAHL		minutes of oddin +
		hypertrophy) (resting heart rate (RHR) or oradycardia	reduces risk of CHD/ or eq. or easier to perform exercise/ reduced onset of fatigue/ avoid OBLA/ increase duration/intensity of performance		Accept any other suitable BAHL links. Only give a mark when
		7. (blood pressure)	_ower blood pressure	less risk of stroke/ CHD or eq.		the result of the adaptation is link to
			ncreased number of red blood cells/haemoglobin so more oxygen is transported around the body	easier to perform exercise/ reduced onset of fatigue/ avoid OBLA/ increase duration/intensity of performance		BAHL
		- (1)	ncrease d surface area of alveoli/lung capacity	easier to perform exercise/ reduced onset of fatigue/ avoid OBLA/ increase duration/intensity of performance		
		muscles) s	Stronger respiratory muscles so more efficient breathing mechanics/TV/ increased VO ₂ max or eq.	easier to perform exercise/less fatigue/ alleviates symptoms of asthma		

Question	Answer				Guidance
	11. (arterial walls)	Increased elasticity of arterial walls helps regulate blood pressure Or lower blood pressure	less risk of hypertension/ CHD/ stroke or eq		
	12. (muscular)	Muscle hypertrophy results in increased strength	everyday activities are easier to perform/ it is easier to perform exercise/ increases metabolic rate which increases energy expenditure so could help manage weight		
	13. (myoglobin)	Increased myoglobin stores improve O ₂ storage and transport to mitochondria	easier to perform exercise/ less fatigue/ more energy or eq.		
	14. (mitochondria)	Increased number of mitochondria	easier to perform exercise/less fatigue/ more energy		
	15. (enzyme activity)	Increased aerobic enzyme activity increases metabolism of fat	better weight management or eq.		
	16. (capilliarisat ion)	Increased muscle capilliarisation increases gaseous exchange/surface area for diffusion	easier to perform exercise/ less fatigue or eq.		
	17.(connective tissue)	Increased strength of tendons/ligaments	less risk of injury/ increased joint stability		
	18. (Strength of bones)	Increased strength of bones due to increased calcium content / bone (mineral) density	less risk of injuries associated with ageing/ less risk of osteoporosis		
	19 (Body composition)	Decrease in non-lean body mass/ fat mass/ % body fat/ increase in metabolic rate	easier to perform exercise/ everyday activities / metabolise/breakdown fats		
	20. (cartilage)	Increased production of synovial fluid helps lubricate joints/ nourish articular cartilage and reduce friction or thickens articular cartilage	less joint problems/ pain/ injuries/osteoarthritis		

Question		Answer	Marks	Guidance
5 (c)	5 marks for 5 from:		5	
	Use of RhEPO			
	1. (EPO/ Rh EPO - hormone)	EPO/ Rh EPO is a hormone that is injected into the body		
	2. (RBCs/haemoglobin)	Increases the volume of red blood cells/haemoglobin in athlete's body.		
	2. (O ₂)	more oxygen can be transported around the body or allows athlete to transport more oxygen to the working muscles to perform aerobically for longer		
	3. (aerobic)	Increases the ability to produce energy aerobically/VO _{2max} / aerobic capacity / delays OBLA / fatigue or useful to aerobic performers/ e.g. cycling, rowing, marathon runners		
	4. (cheating)	Cheating/ unfair/illegal/immoral		
	5. (hard to detect)	Difficult to test for so performers get away with it/ can use under- threshold volume without detection		
	6. (health consequences)	Heart attack/problems or increased blood pressure or increased viscosity of blood or blood clotting		
	7. (infection from needles)	Contamination of needles/ HIV/hepatitis/ blood borne virus		
	8. (performance effects)	Reduced resting HR which will reduce CO/blood flow		
	9. (natural)	Decreased natural production of EPO which will reduce RBC production/ compromise longevity of career		

(d)* Levels of Response	
Level 4 (18-20 marks) A comprehensive answer: detailed knowledge & excellent understanding detailed analysis and excellent critical evaluation well-argued, independent opinion and judgements which are well supported by relevant practical examples very accurate use of technical and specialist vocabulary high standard of written communication throughout.	 At Level 4 answers are likely to show: a detailed explanation of the factors affecting explosive strength. a detailed and appropriate training programme to improve explosive strength. detailed knowledge of sets/reps/intensity/work: relief ratio. excellent application of the principles of training. detailed explanation of how the programme improves health and fitness.
Level 3 (13-17 marks) A competent answer: good knowledge and clear understanding good analysis and critical evaluation independent opinions and judgements will be present but may not always be supported by relevant practical examples generally accurate use of technical and specialist vocabulary written communication is generally fluent with few errors.	 At Level 3 answers are likely to show: a good explanation of the factors affecting explosive strength. an appropriate training programme to improve explosive strength. good knowledge of sets/reps/intensity/work: relief ratio. good application of the principles of training. good explanation of how the programme improves fitness and at the top of this level including health.
Level 2 (8-12 marks) A limited answer: Imited knowledge and understanding some evidence of analysis and critical evaluation opinion and judgement given but often unsupported by relevant practical examples technical and specialist vocabulary used with limited success written communication lacks fluency and contains errors.	 At Level 2 answers are likely to show: a limited explanation of the factors affecting explosive strength. a limited training programme to improve explosive strength. basic knowledge of sets/reps/intensity/work: relief ratio. an attempt at applying the principles of training. Limited explanation of how the programme improves health or fitness.
Level 1 (0 – 7 marks) A basic answer: • basic knowledge and little understanding • little relevant analysis or critical evaluation • little or no attempt to give opinion or judgement • little or no attempt to use technical and specialist vocabulary • errors in written communication will be intrusive.	 At Level 1 answers are likely to show: a basic explanation of the factors affecting explosive strength. a basic training programme to improve explosive strength. little or no attempt to demonstrate knowledge of sets/reps/intensity/work: relief ratio. little or no attempt at applying the principles of training. little or no attempt at explaining how the programme improves health or fitness.

Quest	tion		Answer	Marks		Guidance
5 (d)	*	Indicative Content:	sive of non-math	20		Give KU for relevant knowledge
		1. (definition)	The ability to expand a maximal amount of energy in one or a series of strong, sudden high intensity movements/ apply a successive and equal force rapidly/ maximum force generated during a fast/ quick contraction • E.g. high jump/ long jump/ sprints/ javelin (or eq.) • E.g. sprint down the wing in rugby/ drive for and interception in netball		•	points (usually main headings) Give DEV for relevant development points (usually bullet points)
		2. (fibre type)	 Muscle composition The greater the % of fast twitch fibres the greater the (explosive) strength large motor units 		•	Give EG for relevant practical examples
		3. (muscle size) 4. (gender)	recruitment of FG fibres Size of muscle larger the cross sectional area/ larger the muscle the greater a force it can generate Gender		,	Always indicate the Level at the base of the answer (L1,L2,
		4. (gender)	 males generally have a greater strength due to larger muscle mass/ cross-sectional area/ muscle size (or opp.) males have higher testosterone levels (or opp.) 		•	L3 or L4) Do not be limited by the indicative
		5. (age)	 Age strength decreases with age due to decreased testosterone/ muscle mass/ elasticity/ speed of neuromuscular system Peak strength for females – 16-25 years/ Peak strength for males – 18-30 years old Greatest gains made 20-30yrs 		•	content give credit for other relevant points or development Do not give credit to
		6. (inactivity)	Muscles decrease in size with inactivity			irrelevant material

Question	Answer			Marks	Guidance
	7.	(training)	 Specific strength training can improve (explosive) strength Weight / resistance / plyometric training hypertrophy of muscles (size of cells) hyperplasia of muscles (number of cells) 		
	8.	(ROM/ joint angle)	The range of motion/ angle at a joint/length of muscle can affect the strength that an individual can exert.		
	9.	(temperature)	Increased temperature can increase explosive strength Increased enzyme activity Increased speed of neural transmission Increased elasticity		
	Trair	ning programme	n.e. cacca a c.ac.io.i.y		
	10.	(frequency)	2-5 x a week • 2 rest days		
	11.	(duration)	Short duration • 0-30 seconds/ accept up to 60 seconds		
	12.	(duration – plyometrics)	15-30 seconds on each activity 100-200 contacts 2-3 reps		
	13.	(type – interval/circuit)	Interval/ circuit training • E.g. Medicine ball exercises, squats, vertical jumps, press ups, sit ups		
	14.	(type – plyometrics)	Plyometrics Jumping/ bounding/hopping/ box jumps/ press up with a clap involves a concentric contraction followed by an eccentric contraction which results in a greater force/ stretch reflex to recruit more motor units		
	15.	(type – weight training)	Weight training Bench press/weighted squats/leg press 3-10 reps		
	16.	(sets)	2/3-6 sets		
	17.	(intensity)	High intensity/ fast reps		

Question		Answer			Guidance
	18.	(work: rest/relief)	70-90 % I RM High work: rest/relief ratio/ 1:3/ 1:6		
		(WOIN: 165016IICI)	 30 seconds 50% recovery 3 minutes full recovery 		
	19.	(number of stations)	3-5/6 stations	-	
	Gene	,		1	
	20.		 Keep training diary to monitor intensity/duration/repetitions/work:rest ratios 		
	21.	(Principles of training – up to 3	Principles of training- overload; progression; variance; specificity; moderation; reversibility		
		dev)	overload to increase amount of work body does/ push body beyond normal limit by increasing FIT progression to increase workloads gradually appearance.		
			progression to increase workloads gradually once adaptations have been made Agriculture of the progression of the progres		
			 variance to maintain motivation / prevent RSI/ boredom specificity to the alactic system/ FG fibre types/ muscle group/ movement pattern 		
			moderation to provide appropriate overload/ prevent burnout/ overtraining		
			reversibility – maintain training to prevent adaptation loss		
	22.		Appropriate test • Vertical jump test/ standing broad jump (or eq.) Set realistic targets/ goals/ improve score on standing long jump/ vertical jump/ SMART targets		
	23.		Re-test to monitor improvement / maintain progression]	
	24.		 Periodisation Microcycle -Short term objective/1 to 3 weeks/recurrent units Made up of a number of training sessions 		
	25.		Mesocycle Medium term objective/approx.6 weeks/depends on sport/objective Could be pre-season/competitive/off/ transition season		

Question	Answer				Guidance
	26.		Made up of a number of microcycles Before each session the athlete should warm up Increases muscle temperature/increased enzyme activity/increased elasticity of muscle/vascular shunt (or eq.) Reduces risk of injury Reduce the risk of DOMS Especially with plyometric training After each session the performer should complete a cool down Maintains venous return & stroke volume/prevents blood pooling/removes lactic acid/reduces DOMS (or eq.)		
	Heal	th and fitness benef			
	Fitne	ess benefits			
	28.	(skeletal muscle- size)	 Increased ability of the muscle to produce maximal force quickly Hypertrophy of the muscle Hyperplasia/ increase in number of muscle fibre 		
	29.	(skeletal muscle - actin/myosin)	Increased number/ size of contractile protein More actin/ myosin cross bridges		
	30.	(neural - recruitment of muscle fibres/units)	Increased recruitment of fast twitch muscle fibres Increased recruitment of motor units Resulting in a stronger contraction Improved co-ordination of motor units		
	31.	(neural - reduction in antagonist inhibition)	Less inhibition from antagonist muscle/ stretch reflex Allows antagonist to stretch further So that agonist can contract with greater force		
	32.	(metabolic - ATP)	Increase in ATP/PC stores Increase in myoglobin stores		
	33.	(buffering)	Increased buffering capacity Higher tolerance to lactic acid Delays fatigue		
	34.	(enzyme activity)	Increased action of glycolytic enzymes GPP/ PFK		
	35.	(anaerobic	Increased anaerobic threshold		

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Question	Answer			Marks	Guidance
		threshold)	 Increased recovery of ATP/PC and lactic acid system Delays OBLA 		
	36.	(capillary density)	Increased density of capillaries So greater O2/CO2 transport Greater diffusion of oxygen Which could result in quicker removed of lectic acid		
	Healt	th benefits	Which could result in quicker removal of lactic acid	\dashv	
	37.	(connective tissue)	Increased strength of connective tissue Tendons/ligaments are stronger so less risk of injury		
	38.	(bone density)	Increase bone density Less risk of osteoporosis		
	39.	(CHD)	Reduces risk of CHD • Due to hypertrophy of the heart		
	40.	(blood pressure)	Reduces blood pressure		
	41.	(weight)	Lose weight More muscle will result in higher metabolic rate		
	42.	(social)	Better body tone/hypertrophic body Increased self esteem		

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