OCR
RECOGNISING ACHIEVEMENT

GCE

Physical Education

Advanced GCE **A2 H554**

Advanced Subsidiary GCE **AS H154**

Mark Scheme for the Units

January 2010

H154/H554/MS/10J

Oxford Cambridge and RSA Examinations

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Advanced GCE Physical Education (H554)

Advanced Subsidiary GCE Physical Education (H154)

MARK SCHEME FOR THE UNITS

G451 An Introduction to Physical Education

Section A – Anatomy and Physiology		Accept	Do not accept
Answer **all** parts of the question.			
1 (a)	**Use your anatomical and physiological knowledge to complete the table below for the athlete's elbow during the upward phase of the bicep curl.** **3 marks, 1 for each element of the table completed correctly. Accept first answer only**		

Joint	Joint Type	Movement	Agonist	Antagonist
Elbow	**1. Hinge or synovial hinge** (synovial on own – TV)	**2. Flexion**	Biceps Brachii	**3. <u>Tricep(s) Brachii</u>**

What type of muscle contraction is occurring in the biceps brachii during the downward phase of the bicep curl?

1 mark. Accept first answer only.

4. eccentric or isotonic eccentric (isotonic on own = TV)

Name one muscle in the trunk acting to maintain good posture and core stability during the biceps curl.

1 mark. Accept first answer only.

5.multifidis / transverse abdominis / rectus abdominis / (external) obliques / (internal) obliques / erector spinae / sacrospinalis /.

(abdominals on own = TV)
(rectus abdominals/abdominus rectus = BOD)

5 marks in total for question 1(a)

Section A – Anatomy and Physiology		Accept	Do not accept
1 (b)	**Using a serve in tennis, explain Newton's three laws of motion.** **5 marks. Sub max 2 if laws are stated but not applied.** ***Explanation must be clearly linked with the correct law.***	**Additional guidance:** Serve starts when player takes position and ends when opponent hits the return or the ball hits the net	
1. (N1)	**law of inertia or Newton 1 states** a body will remain in a state of uniform motion or at rest unless an (external) force acts upon it.	Candidates who write **N1or law of inertia and** give the example of tennis that is embedded within the definition of the law = 2 marks.	
2. (e,g.N1)	**law of inertia or Newton 1 states** (ball) the tennis ball will remain in the server's hand until s/he applies a force to the ball to toss it / (ball) the tennis ball will continue to travel vertically upwards or downwards (from the toss) until the force of the racket head changes its direction / (player) the tennis player needs to apply a force to the ground to allow them to stretch up or jump to hit the ball.		
3. (N2)	**law of acceleration or Newton 2 states** the acceleration or rate of change of momentum or velocity of an object is proportional to the force (and takes place in the direction in which the force acts.)	rate of change of speed = BOD Candidates who write **N2 or law of acceleration and** give the example of tennis that is embedded within the definition of the law = 2 marks.	speed or velocity of ball (without mentioning change) = TV
4. (e.g.N2)	**law of acceleration or Newton 2 states** (ball) the harder the player hits the ball the faster it will travel (in the direction it has been hit) / (player) the greater the force applied to the ground the faster or further the player will jump into the air.		(for ball) the **further** it will travel
5. (N3)	**law of reaction or Newton 3 states** for every action there is an equal and opposite reaction.	Candidates who write **N3 or law of reaction and** give the example of tennis that is embedded within the definition of the law = 2 marks.	'action reaction' as explanation
6. (e.g.N3)	**law of reaction or Newton 3 states** (ball) the racket strings apply a force to the ball and the ball will apply an equal and opposite force to the strings or vice versa / (player) to jump to hit the ball, the player applies a downward or action force on the ground that applies an upward (reaction) force on the player / (player) to jump to hit the ball, the player applies a force on the ground that applies an opposite force on the player		
			5 marks in total for question 1(b)

Additional guidance:
'*law of inertia - the harder the player hits the ball, the faster it will travel'* = 0 marks = (N1 identified but application = N2, which has not been identified)
'law of inertia – a body will remain in a state of rest in hand unless a force acts upon it' = 1 mark for point 1 = (law identified but not applied to tennis serve)
'law of inertia – a tennis ball remains in player's hand until they apply a force to toss the ball' = 2 marks = application embedded within definition of N1 – hits point 1 ***and*** *point 2)*

Section A – Anatomy and Physiology		Accept	Do not accept
1 (c)	**Give <u>three</u> mechanisms which maintain venous return during exercise. 6 marks**		
Mechanisms - sub max 3. Mark first three answers only.			
1	skeletal or muscular or muscle pump	Accurate descriptions	
2	(pocket) valves		
3	respiratory (muscle) pump		
4	smooth muscle		
5	gravity from above the heart		gravity on own
	Explain how the increase in blood flow affects cardiac output. sub max 3		
Frank-Starling's law (of the heart)			
6	more blood returning to the right atrium or heart		increase in blood flow/ increased venous return = Rep
7	increased stretch of the myocardium or heart wall (during ventricular diastole) / increased end diastolic volume	EDV or end diastolic volume	
8	causing greater force of contraction (during ventricular systole) / decreased end systolic volume	ESV for end systolic volume	
9	(as SV = EDV-ESV) stroke volume increases/more blood pumped out of the heart per beat	SV for stroke volume	
10	cardiac output = heart rate x stroke volume	Q or CO for cardiac output	
11	(therefore) cardiac output **increases**		
12	(more blood returning to the right atrium or heart) directly **stimulates** or **triggers** the SA node or causes **increased** firing rate of SA node (which increases heart rate)		pacemaker
			6 marks in total for question 1 (c)

		Accept	Do not accept
1 (d) Describe the neural mechanisms which cause heart rate to change <u>during</u> exercise. **4 marks – Sub max 2 for points 1-4**			reference to adrenalin
1. (chemo)	chemoreceptors detect **increase** in (pp)CO_2 or acidity or lactic acid or lactate or **decrease** in (pp)O_2 or pH (of the blood)		change on own
2. (proprio)	proprioceptors detect movement		
3. (baro)	baroreceptors detect **increase** in (blood) pressure or / baroreceptors detect stretch of the arterial or blood vessel walls		
4. (thermo)	thermoreceptors or temperature receptors detect **increase** in <u>blood</u> temperature		
5. (CCC)	information sent to the cardiac control centre or CCC (in the medulla oblongata)		
6. (sympathetic)	(via the) sympathetic nervous system or SNS	autonomic or autogenic nervous system or ANS or sympathetic system or sympathetic control = BOD	
7. (nerve)	(impluses sent) down the (cardiac) accelerator nerve (to the SA node)		
8. (SA node)	to stimulate the SA node / increase firing of the SA node		pacemaker
			4 marks in total for question 1 (d)

Section A – Anatomy and Physiology		
1 (e)	**Discuss the positive and negative effects on the skeletal system of young people performing:** • **Contact sports** • **High impact sports** • **Activities involving repetitive actions.** **10 marks – Levels marked question**	
Level 3 **8-10 marks**	**A comprehensive answer:** • **detailed** knowledge & understanding • **effective** analysis/critical evaluation and/or **discussion**/explanation/development • **clear** and **consistent** practical application of knowledge • **accurate** use of technical and specialist vocabulary • **high standard** of written communication.	**Discriminators from L2 <u>are likely</u> to include:** • balanced discussion of **both** positive and negative aspects • successful development of some specific conditions i.e. osteoporosis, osteoarthritis, growth plates, joint stability, posture and alignment
Level 2 **5-7 marks**	**A competent answer:** • **satisfactory** knowledge & understanding • analysis/critical evaluation and/or **discussion**/explanation/development **attempted with some success** • **some success** in practical application of knowledge • technical and specialist vocabulary used with **some accuracy** • written communication **generally fluent** with **few errors**	**Discriminators from L1 <u>are likely</u> to include:** • **both** positive and negative aspects covered although more detail may be evident in one • reference to some **specific conditions** i.e. osteoporosis, osteoarthritis, growth plates, joint stability, posture and alignment
Level 1 **0-4 marks**	**A limited answer:** • **basic** knowledge & understanding • **little or no attempt** to analyse/critically evaluate and/or **discuss**/explain/develop • **little or no attempt** at practical application of knowledge; • technical and specialist vocabulary used with **limited success**; • written communication **lacks fluency** and **there will be errors**, some of which may be intrusive	
1 (e)	**Indicative content**: Candidate responses are likely to include: (relevant responses not listed should be acknowledged)	
Care must be taken not to credit effects on the muscular system. i.e. watch out for sprain (ligament) = OK but strain (muscle) = IRR		

Section A – Anatomy and Physiology

Numbered points = knowledge and understanding **Bullet points** = likely to be development of knowledge

POSITIVE EFFECTS	**Contact sports**	**High Impact sports**	**Repetitive actions**
	e.g. rugby, American football, Aussie rules football	netball, basketball, some events in track and field, gymnastics	**e.g.** run, row, swim, constantly practise technique i.e. tennis serve etc
1. stronger or healthier bones / increase in peak bone density or calcium deposits • reduced risk of osteoporosis • osteoporosis is the weakening of bones or loss of bone density - making bones more prone to fractures or damage • reduced risk of damage to growth plates • weight bearing activities are best to improve bone health.	✓	✓	✓
2. healthier joints / increase in thickness of articular or hyaline cartilage • greater ability to absorb shock so reduced risk of injury • reduced risk of developing osteoarthritis in later life • osteoarthritis is a degenerative disease due to loss of articular or hyaline cartilage at the ends of long bones	✓	✓	✓
3. stronger ligaments (stronger tendons = BOD) • increased joint stability • less risk of injury or joint trauma **e.g**. sprains, dislocations etc • joint trauma can lead to osteoarthritis in later life	✓	✓	✓
4. better lubrication of joints by synovial fluid • improves joint health • aids flexibility	✓	✓	✓
5. decreased mechanical strain on joints due to exercise helping to manage weight as part of an active, healthy, balanced lifestyle • reduces risk of osteoarthritis • prevents sedentary lifestyle that can be linked with osteoporosis in later life	✓	✓	✓

Credit <u>description</u> of condition once only e.g. if description of OA credited for positive it cannot be credited for negative.

NEGATIVE EFFECTS	**Contact sports**	**High Impact**	**Repetitive actions**

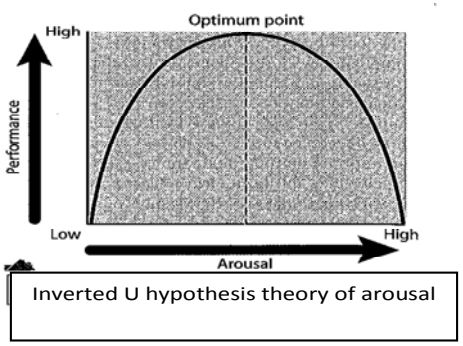
Section B: Acquiring Movement Skills			Accept	Do not accept
6. increased risk of damage to articular/hyaline cartilage or increased risk of wear and tear on articular cartilage • increased risk of joint trauma **e.g**. sprain, dislocation (cartilage or meniscus) tear etc • which can lead to osteoarthritis in later life • osteoarthritis - degenerative / loss of articular/hyaline cartilage at the ends of long bones	✓	✓		✓
7. increased risk of ligament being stretched or torn / sprain / (tendon tear = BOD) • decreased joint stability	✓	✓		
8. increased risk of damage to growth plates or immature bone • plate of cartilage or immature bone is at the end of long bones or between the epiphysis and diaphysis • the growth plate closes towards the end of adolescence **e.g.** Tom Daley – limited number of platform dives a day	✓	✓		✓
9. increased risk of an impact or acute injury/ break or fracture **e.g.** or dislocation or sprain or (meniscus) tear or joint separation i.e. acromioclavicular or ac joint **eg** Rooney metatarsal • after break bone is stronger • the safest types of physical activity is aerobic or submaximal or low to medium intensity	✓	✓		
10. increased risk of overuse or chronic injury **e.g.** tendinitis or tennis or golfer's or thrower's elbow or <u>stress</u> fracture or shin splints or Osgood schlatter syndrome or chondromalacia patella or runner's knee				✓
11. increased risk of inflamed bursa or bursitis • bursa is a fluid filed sac • which cushions and lubricates the joint where friction is likely to occur				✓

e.g. effects relevant to the knee joint • hinge joint and so injury prone • at particular risk of damage to ligaments • e.g. anterior/posterior cruciate, medial/lateral collateral • risk of meniscus tear– very common in impact & contact sports	**e.g. effects relevant to the shoulder joint** • shallow joint and so prone to dislocation • ball and socket joint but much less stable than the hip • head of humerus very loosely fits into glenoid fossa of scapula
	Section A Total [30]

2 (a)	**Identify a motor skill in sport and justify its classification on the open closed continuum.** **Explain which practice methods would be most appropriate for this skill.** **6 marks - a motor skill must be identified** **If motor skill is wrongly classified (e.g. a free throw is an open skill) do not carry error forward - mark justification positively.**		
Justification for open classification/Open because: Sub max 3 E.g. A pass or shot in hockey / sailing			
1.	the environment or others affect the skill / environment is unstable or changing or unpredictable / performer has to adapt to changing environment		
2.	predominantly perceptual / needs a lot of perception or judgement or interpretation		
3.	there is much information to process/ the skill is more complex / lots of decision making		
4.	the skill is externally paced / the speed or timing of the skill is dictated or controlled by others		
OR Justification for closed classification/Closed because: Sub max 3 E.g. swimming strokes / gymnastics movements e.g. vault			
5.	the environment or others do not affect the skill / environment is stable or unchanging or predictable		
6.	predominantly habitual / the same pattern of movements is repeated.		
7.	there is little information to process / the skill is simple / fewer stimuli / fewer responses.		
8.	the skill is internally or self paced / the performer controls the speed of the skill.		
Explanation of practice methods: Sub max 3 NB practice method must be stated to gain mark			
Practice methods for open skills			
9.	**varied** practice should be used to motivate / to build interest or schema / give different experiences / simulates game situation		varied prac on own
OR Practice methods for closed skill:			
10.	**fixed** practice should be used to form habits / to develop motor programmes		
Practice methods for open OR closed skills			
11.	**distributed** practice should be used to allow for recovery / feedback / coaching		
12.	**Whole part whole** for open skills to correct faults or give specific coaching		
13.	**massed** practice should be used to form habit /to develop motor programmes		
14.	**whole** practice should be used for understanding of environment		
15.	**whole part whole** or **part** practice should to develop or improve (weak) subroutines		
16.	**whole** practice should be used to give idea or understanding or a mental picture or holistic view of skill		
17.	(progressive) **part** practice should be used to give early success / to motivate or give confidence / to help understanding the skill / for more complex skills / if skill is dangerous / to increase safety	**6 marks in total for question 2 (a)**	

2 (b)	**Explain <u>the role</u> of mental practice in the performance of movement skills.** **4 Marks**		
		Do not accept	
1.	(helps) **create** a mental picture of the skill / helps performer to visualise performance	It is visualisation It is imagery It is rehearsal A description of MR A practical example alone '*a sprinter goes over a picture in her mind*' *'a sprinter might visualise the start of the race.*'	
2.	Helps **understanding** of requirements.		
3.	Helps visualise fault correction.		
4.	Activates nervous impulses / cuts down on reaction time.		
5.	Helps to discard irrelevant information / maintains focus or selective attention.		
6.	Visual representation **remembered** better/ helps performer remember what skill should look like		
7.	Can organise information for storage/increase storage capacity.		
8.	Can improve confidence /can increase optimism.		
9.	Helps to control arousal levels.		
			4 marks in total for question 2 (b)

2 (c)	**Learning and performing movement skills often involves the use of the memory process.** **Describe the multi-store memory <u>process</u> when performing movement skills.** **4 marks**		
		Accept	**Do not accept**
1.	(involves the) short-term sensory store or STSS **and** short-term memory or STM **and** long-term memory or LTM	Only if in correct order/ accurate diagram in correct order	
For points 2-5, emboldened points **and** description required for each mark			
2.	(involves the) **short-term sensory store** or **STSS** selective attention happens / important information is filtered in / irrelevant information is filtered out		
3.	(Involves the) **short-term memory or STM** organises or chunks information / encodes information to LTM		
4.	(Involves the) **long-term memory** or **LTM** stores or remembers information or patterns of movement **indefinitely** / decodes information (to STM) / stores motor programmes (used to perform movements) / associates (current) performance with previous performances (to recognise strengths and weaknesses)		
5.	Memory process affects or influences perception / helps judge or interpret what needs to be done (to perform the movement)		
			4 marks in total for question 2 (c)

2 (d)	**Using the Inverted U theory and a practical example explain how levels of arousal can affect the performance of movement skills. 6 marks - 1 mark for practical example Point 1 required for max 6**		
1	(example)award when practical example is **clearly** linked with **a** theory point		
	Under arousal a golfer drives but fails to hit the green/drives short a sprinter slow out of blocks as not stimulated enough a rugby tackle may be half hearted – and attacking player runs through	**Optimal arousal** a golfer needs moderate arousal to drive effectively and hit the green/target area a sprinter is quick out of the blocks and therefore most likely to perform well a rugby player makes clean, effective tackle	**Over arousal** in golf can cause loss in technique so performance can be lowered/drives too long/wide sprinter may false start due to excessive stimulation rugby player may have lack of control when tackling / high tackle giving away a penalty
Sub max 5 for points 2-5			
2	 Inverted U hypothesis theory of arousal		**Additional guidance** Both axes must be named correctly • Arousal (x axis) • Performance (y axis) and labelled: • Low to high OR with arrow clearly showing increase • Optimum point **named**
3	as arousal increases so does performance but only up to a point or optimum level / optimum performance at moderate levels of arousal		
4	if arousal is too high or performer highly aroused then performance will decrease/ under arousal leads to poor performance		
5	theory is modified depending on personality of performer / extrovert performs well with high arousal / introvert underperforms (or extrovert performs well) with high arousal		
6	theory is modified depending on the ability or skill of performer / performer in cognitive stage achieves optimum performance with low(er) levels of arousal / beginner can only cope with low(er) levels of arousal / performer in autonomous stage achieves optimum performance with high(er) levels of arousal		
7	theory is modified depending on the nature of the task / fine or complex skills performed most effectively at low(er) levels of arousal / gross or simple skills performed most effectively at high(er) levels of arousal		
8	**Inverted U does not** explain sudden decreases in performance		
			6 marks in total for question 2 (d)

2 (e)	**Using practical examples, explain the process of observational learning when it is used for acquiring movement skills <u>and</u> learning to follow an active and healthy lifestyle. Refer to Bandura's model in your answer.** **10 marks – Levels marked question**	
Level 3 **8-10 marks**	**A comprehensive answer:** • **detailed** knowledge & understanding • **effective** analysis/critical evaluation and/or discussion/**explanation**/development • **clear** and **consistent** practical application of knowledge • **accurate** use of technical and specialist vocabulary • **high standard** of written communication.	**Discriminators from L2 <u>are likely to</u> include:** • four parts of the model addressed: i.e. attention/retention/motor reproduction/motivation • valid movement **and** BAHL examples given
Level 2 **5-7 marks**	**A competent answer:** • **satisfactory** knowledge & understanding • analysis/critical evaluation and/or discussion/**explanation**/development **attempted with some success** • **some success** in practical application of knowledge • technical and specialist vocabulary used with **some accuracy** • written communication **generally fluent** with **few errors**	
Level 1 **0-4 marks**	**A limited answer:** • **basic** knowledge & understanding • **little or no attempt** to analyse/critically evaluate and/or discuss/**explain**/develop • **little or no attempt** at practical application of knowledge; • technical and specialist vocabulary used with **limited success**; • written communication **lacks fluency** and **there will be errors**, some of which may be intrusive	

2 (e)	**Indicative content**: Candidate responses are likely to include: (relevant responses not listed should be acknowledged) **Numbered points** = knowledge / understanding **Bullet points** = likely to be development of knowledge

Indicative content:

1. Demonstration – watching demonstration/watching the model
   - (accurate development of demo. point)
2. **Attention**
3. performer cues in to or selectively attends to or focuses or concentrates (on aspects of display or demonstration)
   - **role models** or high status performers or significant others draw focus / role model educate or encourage or shows how to follow an active and healthy lifestyle / degree of attention is influenced by attractiveness or status of model
   - **key points** highlighted / verbal guidance used to highlight key aspect of demo

   e.g. (movement skill) focus on or watch the arm action of a successful performer's tennis serve
   e.g. (BAHL) watching or seeing a role model or significant other who does not smoke / or whose alcohol intake is moderate
   e.g. (BAHL) watching a successful tennis player who follows a healthy lifestyle
   e.g. (BAHL) regular participation in sport by popular people encourages observer to follow active lifestyle
4. **Retention**
5. observer needs to remember the demo or movements or behaviours watched
   - **repetition** of the **demonstration** or role model's movements or behaviours will **aid** memory / demo or information should be repeated

   e.g. (movement skill) coach repeats or gets another athlete to repeat demo of triple jump or other skill
   e.g. (BAHL) information about importance of not smoking / moderation in alcohol consumption is repeated so learner remembers key information
   - use of mental rehearsal or imagery can help (observer retain demonstration)

   e.g. (movement skill) imagining the movement of arm action in a tennis serve may help retention/performer mentally rehearses serve
   - symbolic coding by using key/catch phrases can help retention of demonstration

   e.g. (movement skill) use of phrases such as 'clean palm, dirty neck' (Shot Putt)
   e.g. (BAHL) catch phrases such as '*change for life'* or '*five a day'*
6. **Motor reproduction**
7. observer must be capable of performing the skill / or information must be at a level relevant to performer / performer must be able to match demonstration
   - observer must have **physical** capacity to perform skill or follow lifestyle choices
   - performer must have **mental** capacity to understand skill or lifestyle choices

   e.g. (movement skill) a young child will not be able to perform a slam dunk (basketball) / must have leg strength to complete all three phases of triple jump/ lower school performers must understand components of triple jump
   e.g. (BAHL) learners must **understand** the benefits of not smoking / of a balanced diet
8. **Motivation** –

9. observer must have drive to or want to learn to copy model
   - use of praise or positive reinforcement (to encourage drive to copy model)

   e.g. (movement skill) coach praises or positively reinforces successful copying of tennis serve / coach uses praise or positive reinforcement to encourage copying of demonstration

   e.g. (BAHL) parents praise or support your healthy or lifestyle / role model praises learner for not smoking / moderating alcohol consumption / for exercising / badge given for eating healthily or exercising

   e.g. (BAHL) learners must have mental willpower to stop smoking/moderate alcohol consumption

10. Matching performance – performer imitates demonstration

Further discussion might include:

11. copying more likely if behaviour is **socially acceptable/**follows **social norms**

    e.g. (movement skill) if sportsmanship shown by tennis player / if tennis player always does thorough warm up

12. copying more likely if behaviour or skill is considered to be **relevant** (to needs)
    - Observer will try to copy model if they can see how copying (the behaviour or skill) will positively affect performance or lifestyle

    e.g. (movement skill) observer / player wants to play tennis or improve tennis serve or get fitter

    e.g. (BAHL) observer / player wants to follow an active lifestyle to make friends

13. copying more likely if observer can **identify with** model or demonstrator
    - Same sex / age / race / ability model will encourage copying

    e.g. (movement skill) female observer more likely to try to copy serve of female demonstrator

    e.g. (BAHL) male observer more likely to want to copy active lifestyle of male demonstrator

14. reference to bobo dolls experiment

Section B Total [30]

Section C: Socio-Cultural studies relating to participation in physical activity			Accept	Do not accept
3 (a) It is widely accepted that physical activity is part of a healthy lifestyle. However, people lead more sedentary lifestyles now than in the past. **(i) Identify reasons for increasingly sedentary lifestyles in the UK today.** **3 marks**				Lack of money or facilities or motivation Lack of opportunity, provision, esteem. /due to recession
1.	(deskbound)	more desk or office jobs / less manual work / exercise now a choice not necessity		
2.	(work)	more time at work / long hours at work / work increasingly demanding / concentrating on careers		'Lack of **time'** on own
3.	(gadgets)	labour saving gadgets or machines / accept suitable example e.g. sit-on mowers /TV channel controls		
4.	(cars)	widespread car use / children driven to school		
5.	(technology)	technology / computer use / shopping on-line / computer games		
6.	(parents)	parents don't exercise / limited role modelling		
7.	(concern)	children don't play outside / fear of allowing children to play out		
8.	(TV)	More TV channels / people watch sport on TV / people watch rather than participate		
(ii) What are the physical activity recommendations for active lifestyles? **2 marks**				
1.	(5 a week)	(adults) **30** mins **5 times** a week		Any alternatives
2.	(moderate)	Moderate level / able to speak during exercise / feel breathless / recover within 10 mins of stopping	Sub max level Aerobic level	
3.	(children)	for **children** or young people 60 minutes a day	for **children** 5 or 6 or7 x 60 mins per week	60 mins a day on own
4.	(high impact)	**for children** (at least) **twice a week** higher impact activities should be included (e.g. skipping or jumping		
				6 marks in total for question 3 (a)

Section C: Socio-Cultural studies relating to participation in physical activity				Accept	Do not accept
3 (b)	**Identify one difference between Outdoor Recreation and Outdoor Education and explain why there is limited regular participation in Outdoor Education by young people.** **5 marks - 1 mark for difference**				
Difference:		**Outdoor Rec.**	**Outdoor Ed - need direct comparative point for 1 mark**		
1.	(difference)	for enjoyment or fun	for learning		OEd – for education = REP ORec – not serious
		in own **time** / when participant chooses / leisure time / hobby	in school or college **time**/ extracurricular / if compulsory in a school	Organisation: accept reference to different levels of formality. So, informally v formally arranged OEd more structured or organised	
		Organised or lead by self or non-specialists	Organised or lead by school or OEd centre or specialists		
explain why there is limited regular participation in Outdoor <u>Education</u> by young people. **Sub max 4**					
2.	(staff)	lack of staff expertise of qualifications / staff ratios			lack of staff on own
3.	(funding)	cost of or lack of transport or **specialist** equipment / insufficient funding to employ or to train **specialist** staff / need for voluntary contributions / schools not able to charge for out of school activities			OEd is expensive / due to money / 'can't afford it' / lack of funding on own
4.	(risk)	teachers reluctant to take on responsibility / staff uneasy with risk factors / lack of parental consent / complex risk assessment / health and safety / media highlighting tragedies or risks or possible problems			not safe
5.	(distance)	distance from facilities / schools in cities so difficult to get to natural environment or to specialist facilities			access to facilities on own
6.	(time)	not enough time / restrictions on time table / pressure on curriculum / exam work			
7.	(facilities / equipment)	need for **specialist** or appropriate facilities or equipment / e.g. no canoes		'correct' facilities	no space /'lack of facilities' on own/don't have resources
8.	(NC)	**not compulsory** part of NC			not on NC
					5 marks in total for question 3 (b)

Section C: Socio-Cultural studies relating to participation in physical activity			Accept	Do not accept
3 (c)	**In the UK various organisations are involved with physical activity. Describe the work of both: Home country organisations (such as Sport England) The British Olympic Association (BOA) 5 marks - sub max 3 from one section.**			
Home Country organisations - Sub max 3				
1.	(participation)	(works to) increase participation or get more people involved (in sport) / promote community sport or active communities / make countries 'active sporting nations'./ start, stay, succeed / tries to reduce dropout	Builds foundation of Sports development pyramid. (so helps more people to excel)	
2.	(campaigns)	accept any relevant campaign e.g. *'(Get) Active', 'Sporting champions', 'Sport Action Zones'.*	Other valid HC campaigns should be accepted	
3.	(govt support)	supports government targets / e.g. supports PESSCL strategy	PESSYP	works with schools
4.	(funding lottery)	provides or distributes **lottery** or **government** funding / invests in community sport		provides funding on own Funds or provides equipment or facilities
5.	(promotion)	Promotes or encourages volunteering / coaching / leadership / officiating (to get people involved)		supports coaches
6.	(target groups)	targets priority groups (e.g. disabled or elderly)		
7.	(cooperation)	works with other organisations (e.g. NGBs/ HE/FE / local govt/YST/UK Sport/ LOCOG) /shares good practice / encourages co-operation or partnerships between organisations / promotes network of clubs, coaches, facilities **and** volunteers	Works with sports colleges	
8.	(2012)	works to ensure that London 2012 leaves a sporting legacy.		
9.	(excellence)	responsible for funding elite performers in **some** sports (e.g. squash / netball)		funds elite performers on own
10.	(information)	provides information or expertise or advice (e.g. on coaching/facilities/sports development)		
11.	(playing fields)	Protects community playing fields		

Section C: Socio-Cultural studies relating to participation in physical activity			Accept	Do not accept
The British Olympic Association (BOA) - Sub max 3				
12.	(promotion /2012)	promotes Olympic Games / develops Olympic Movement / organises Olympic day / promotes public relations / involved with organising London 2012		
13.	(bids)	works on Olympic bids		
14.	(sponsors)	appoints or works with official sponsors for 2012 Games / fund raises	attracts sponsorship	Sponsors athletes
15.	(Team GB organisation)	Helps select Team GB /supports or prepares or manages or organises Team GB / provides workshops or training for Team GB (e.g. on motivation or performance lifestyle)	Organises Britain's involvement in the Olympics	
16.	(camps)	provide pre-Games training camps		
17.	(cooperation)	Works with IOC/other **named** organisations e.g. UK Sport		Works with other organisations on own
				5 marks total for question 3 (c)

Section C: Socio-Cultural studies relating to participation in physical activity			Accept	Do not accept
3 (d)	**The game of American Football is extremely popular in the USA Give reasons for the violence and commercialism associated with American Football. 5 marks - sub max 3 from one section.**			
Violence: Sub max 3				
1.	(frontier spirit)	pioneer or frontier spirit / reflects life of early settlers / gun culture		American Dream reference/rags to riches
2.	(rules)	rules allow or encourage violence / contact or impact sport		
3.	(crowd)	crowd wants violence or a sensational or exciting spectacle		competitive nature of supporters
4.	(winning)	(due to) importance of winning / emotional intensity / high stakes / amount of money involved / professional game / coach 'hire and fire'	'win ethic' / win at all costs / Lombardian ethic/ *'it's all about winning' =BOD*	due to sponsorship of players or teams /competitive nature of game / due to links with commercialism
5.	(protection)	protective clothing or armour / de-humanised opponents		
6.	(military)	(pseudo military) language (e.g. platoons, 'bomb,' sack opposition)		
7.	(specialists)	due to specialists within team (e.g. specialist defensive team players such as line backers of defensive tacklers)		
8.	(tradition/ early days)	game traditionally violent / some deaths in early days / in early days president intervened to clean up game		early game had no or few rules
9.	(generic)	frustration with officials or opponents or team mates / provocation or abuse / lack of punishment or deterrent		crowd behaviour/result/score
Commercialism: Sub max 3				
10.	(capitalism)	(links with) capitalism		'*all about money'*
11.	(sponsors)	opportunity for sponsors or profit making		
12.	(TV)	game designed for or suits TV / TV or media controls the game / competition for TV Rights / commercial breaks		It is on TV
13.	(franchise /)	teams run as 'franchises or businesses	teams make money	
14.	(Super Bowl)	**Super Bowl** is a huge commercial event / Super Bowl has worldwide coverage		
				5 marks total for question 3 (d)

3 (e)	**Discuss social and cultural factors that affect participation in physical activity in the UK.** 10 marks – Levels marked question	
Level 3 **8-10 marks**	**A comprehensive answer:** • **detailed** knowledge & understanding • **effective** analysis/critical evaluation and/or **discussion**/explanation/development • **clear** and **consistent** practical application of knowledge • **accurate** use of technical and specialist vocabulary • **high standard** of written communication.	**Discriminators from L2 <u>are likely to</u> include:** • • •
Level 2 **5-7 marks**	**A competent answer:** • **satisfactory** knowledge & understanding • analysis/critical evaluation and/or **discussion**/explanation/development **attempted with some success** • **some success** in practical application of knowledge • technical and specialist vocabulary used with **some accuracy** • written communication **generally fluent** with **few errors**	**Discriminators from L1 <u>are likely</u> to include:** • • •
Level 1 **0-4 marks**	**A limited answer:** • **basic** knowledge & understanding • **little or no attempt** to analyse/critically evaluate and/or **discuss**/explain/develop • **little or no attempt** at practical application of knowledge; • technical and specialist vocabulary used with **limited success**; • written communication **lacks fluency** and **there will be errors**, some of which may be intrusive	

3(e) Indicative content: Candidate responses are likely to include: (relevant responses not listed should be acknowledged)
Numbered points = knowledge / understanding **Bullet points** = likely to be development of knowledge

(Opportunity)

1. time available
    - employment or unemployment / work commitments

2. income or money
    - employment or unemployment
    - if you can you afford club membership or afford lessons or equipment etc

3. ability or skill or fitness levels / health

4. choice / don't want to participate in physical activity / can't be bothered
    - do other things / unaware of health benefits
    - technology / computer use
    - computer games Wii/Xbox – positive or negative
    - armchair culture/increasingly sedentary lifestyles/inactive society

(Provision) availability of:

5. facilities / equipment
6. clubs / classes / courses
7. coaches or leaders
8. transport / access to or from rural areas

(Esteem)

9. Esteem or confidence
    - links to body image
    - embarrassed due to body shape (which doesn't match TV/media perfection)
    - intimidation

10. Stereotyping / myths
    - self-fulfilling prophecy - when a minority group accepts society's view or conforms to stereotype

    e.g. when a working class person accepts that they are unlikely to be a tennis or golf star

(Minority groups)

11. Discrimination or unfair treatment
12. Gender
    - provision of suitable activities / suitable timings / lack of crèche facilities
13. Disability
    - specialist facilities or equipment
    - specialist clubs or teams
14. Race or religion
    - some groups have negative attitudes towards sport

    e. g. Asian women may not take part due to sub-cultural values or personal reluctance
15. Age - young or elderly
    - bad experience at school so put off for life
    - lack of suitable instructors or coaches
16. Class
    - class constraints leading to limited access

    e.g. access to a polo club or a private tennis or golf club

(Other)

17. Power of media to influence participation
    - **unaware** of opportunities / poor advertising
18. Influence of role models/family /friends
19. School experience - positive or negative
    - **time** devoted to sport and PE in school

    e.g. if at a sports college or independent school
20. Weather
    - limitations or restrictions due to climate or weather
    - not as favourable as other countries
21. natural landscape/topography

    e.g. mountains for skiing
22. London 2012 – impact and influence
23. Campaigns
    - Work of Home Country Councils **e.g.** Sports Council for Wales **e.g.** a named campaign to promote participation

Section C Total [30]

The following annotations were used in the marking of unit G451.

✓ (Tick)	Tick
x (Cross)	Cross
BOD	Benefit of the doubt
REP	Repeat
?	Unclear
L1	Level 1
L2	Level 2
L3	Level 3
KU	Knowledge and Understanding
EG	Example/Reference
TV	Too Vague
DEV	Development
SEEN	Noted but no credit given
IRRL	Significant amount of material which does not answer the question

G453 Principles and concepts across different areas of Physical Education

<table>
<tr><th>Question Number</th><th>Expected Answer</th><th>Mark</th></tr>
<tr><td colspan="2">Section A - Historical Studies (Option A1)</td><td></td></tr>
<tr><td>1 (a)</td><td>
Social and cultural factors influence participation and performance in physical activity.
Explain how socio-cultural factors influenced the characteristics of popular recreation in pre-industrial Britain.
State how one of these factors continues to impact on participation and performance today.

5 marks for 5 of: sub max 4 for impact of socio-cultural features
sub max 1 for how factors impact today

Impact of socio-cultural factors on popular recreation
Socio-cultural factors…so...Popular recreations were/had
<table>
<tr><th></th><th>Socio-cultural factors</th><th>Popular rec characteristics</th></tr>
<tr><td>1</td><td>limited transport and/or communications</td><td>local</td></tr>
<tr><td>2</td><td>illiteracy/no NGBs/uneducated</td><td>uncodified/simple rules/limited organisation</td></tr>
<tr><td>3</td><td>reflection of life and times/harsh society</td><td>cruel and/or violent</td></tr>
<tr><td>4</td><td>seasonal time/free time on Holy Days or annual holidays</td><td>occasional/festival</td></tr>
<tr><td>5</td><td>before industrial or urban revolution/before migration to towns/population centres on village or county town life/lack of technology</td><td>rural/natural/simple</td></tr>
<tr><td>6</td><td>work sometimes became the basis of play (eg. footmen become pedestrians)</td><td>occupational</td></tr>
<tr><td>7</td><td>rags to riches/increase income</td><td>wagering</td></tr>
<tr><td>8</td><td>two class society/feudal system</td><td>courtly and popular/upper/gentry class activities and lower or peasant class activities</td></tr>
</table>
How factors continue to impact today – credit relevant explanation

9 Transport eg not having a car so unable to get to sports centre
10 Time eg working long hours so unable to get to gym/traditional holidays
11 Money eg unemployed so unable to afford club membership/wagering to make money/professional
12 Class eg unable to play certain games such as golf or polo as considered to be middle (or upper) class
13 Education continues to be important in activities/healthy and active lifestyle
</td><td></td></tr>
</table>

Question Number	Expected Answer	Mark
1 (b)	**Nineteenth century public schools were usually fee paying, non local and boarding. Explain the impact of each of these three characteristics on the development of games in nineteenth century public schools. Comment on how one of these characteristics impacts on young people in schools today.** **3 marks for 3 of:** 1 (fee paying) money for facilities/equipment/coaching/staff/transport 2 (non-local) mix of activities (from home or from different regions)/start of standardised rules 3 (boarding) time to play/impact on standards/games occupied boys outside of classroom/kept them out of trouble Impact same today **Impact today: 1 mark for 1 of:** 4 today - accept accurate relevant comment about how one characteristic continues to impact today fee paying – eg affects choice of school/independent v state/can affect quality of facilities for example non-local – eg affects whether boarder or day student/ boarding – eg affects school experience and/or relationships with friends and family	

<table>
<tr><th>Question Number</th><th>Expected Answer</th><th>Mark</th></tr>
<tr><td>1 (c)</td><td>

Describe the different forms of athletics in nineteenth century public schools and compare these with forms of athletics that young people participate in today.

3 marks max for description only

<table>
<tr><th></th><th>Then</th><th></th><th>Similarities with today</th><th></th><th>Differences from today</th></tr>
<tr><td>1</td><td>Hare and hounds or paperchase adapted from fox hunting/accept description - dropping of paper or ‘scent’ for others to follow</td><td>2</td><td>Cross country or

harrier clubs</td><td>3</td><td>Track and field athletics/sports hall athletics or other suitable contemporary reference/fun runs</td></tr>
<tr><td>4</td><td>Steeplechase adapted from chase on horse-back /accept description of chase over hedges and fields or cross country</td><td>5</td><td>Cross country part of some school curricula.

Steeplechase an established track and field event</td><td>6</td><td>Cross country less popular than 20 yrs ago.
Steeplechase limited in schools due to specialist nature and facility needed</td></tr>
<tr><td>7</td><td>Sports day a social or community or festival occasion (with many spectators) /highly organised or structured/measured tracks/local clubs involved/brass bands etc</td><td>8</td><td>Sports days still big events in some schools.

Often still house representation.
Measured tracks.
In junior schools</td><td>9</td><td>(In state schools) usually part of school day with limited parental or community involvement</td></tr>
<tr><td>10</td><td>Sports day result of improved transport/opportunity to ‘show off’ school or request donations</td><td>11</td><td>Open days including sports days still an opportunity to market school.
Still some donations requested/raffles etc</td><td>12</td><td>Less focussed marketing than in the past</td></tr>
</table>

</td><td></td></tr>
</table>

Question Number	Expected Answer	Mark
1 (d)	**Explain the development of public baths in urban industrial communities in the nineteenth century. To what extent do developmental factors from the nineteenth century continue to impact on participation and performance today?** **A2 level descriptors**	
18-20	**Level 4:- 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. **Discriminators from L3 are likely to include:** • ***a logical and detailed explanation of relevant factors re post industrial swimming*** • ***ref today – both participation and performance covered*** • ***ref today – clear judgements re the extent to which factors impact today*** • ***sound structure and balance between parts of the answer.***	
13-17	**Level 3:- a competent answer** • good knowledge & 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. **Discriminators from L2 are likely to include:** • ***logical explanation of number of factors*** • ***a broad range of factors linked to the development of public baths*** • ***clear reference to contemporary factors with some attempt at evaluation*** • ***possible reference to pre-industrial situation to set scene.***	
8-12	**Level 2:- a limited answer** • limited knowledge & 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. **Discriminators from L1 are likely to include:** • ***understanding of more than hygiene ref post industrial development*** • ***both parts of the question will have been attempted – then and now – but for now both participation and performance may not have been addressed.***	

<table>
<tr><th>Question Number</th><th>Expected Answer</th><th>Mark</th></tr>
<tr><td>1 (d) continued
0-7</td><td>
Level 1:- a basic answer
• basic knowledge & 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.

Indicative Content:

<table>
<tr><th colspan="3">Development of public baths in urban industrial communities</th></tr>
<tr><td>1</td><td>(size)</td><td>Towns grew
• as a result of industrialisation/ overcrowding</td></tr>
<tr><td>2</td><td>(washing)</td><td>Lack of washing facilities
• Only wealthy could afford bathrooms in their homes</td></tr>
<tr><td>3</td><td>(pollution)</td><td>Rivers or natural water supplies polluted/ rivers no longer suitable for washing</td></tr>
<tr><td>4</td><td>(disease)</td><td>• Problems of disease or cholera/in first half of 19th century there were two major cholera epidemics in England (1832 and 1849)</td></tr>
<tr><td>5</td><td>(Wash Houses Act)</td><td>Wash Houses Act
• local authorities could apply for grants to provide public washing facilities (1846)
• public bath houses built/washing facility
• prevention of disease/improve public health</td></tr>
<tr><td>6</td><td>(absenteeism)</td><td>Absenteeism from ill health reduced</td></tr>
<tr><td>7</td><td>(safety)</td><td>Public baths safer than rivers</td></tr>
<tr><td>8</td><td>(class)</td><td>First and second class facilities
• cheap entrance/1d for 2nd class bath
• working class could afford it/penny baths</td></tr>
<tr><td>9</td><td>(swimming)</td><td>Plunge baths for swimming/recreational use
• a spin off/middle class influence
• formation of ASA (1884)/club development
• galas</td></tr>
<tr><td>10</td><td>(local amenity)</td><td>baths showed status of town
• social reform/part of civilising process</td></tr>
<tr><td>11</td><td>(facilities)</td><td>Most major towns built public bath house
• facility might include hot and cold water baths and/or plunge baths and/or public wash-house with laundry and drying facilities</td></tr>
</table>
</td><td></td></tr>
</table>

Question Number	Expected Answer			Mark
1 (d) continued				
	Extent of 19th century factors on participation and performance today			
	12	(size)	Facilities extensive • Most towns well provided with range of facilities including leisure pools	
	13	(washing)	No impact today/leisure/enjoyment now	
	14	(pollution)	Less impact today • Blue flags on beaches/ cleaner beaches and sea/ less polluted	
	15	(disease/health)	To combat obesity and encourage balanced active healthy lifestyles today • health spas with relaxation pools etc/combating stress	
	16	(Safety)	Widely believed that all children should learn to swim • Swimming part of NC	
	17	(Class)	Should not affect opportunity • as Govt aims for free swimming for all	
	18	(Competition)	Impact of NGB awards • or initiatives or campaigns for both participation and performance today	
	19 areas	(Local amenity)	Some towns have prestigious facilities which draw people from surrounding areas	
	Also consider			
	20	(Opportunity)	Factors to do with provision such as availability/time, choice/access • comparatively expensive family activity/(govt supported) free swimming (for U16 and O60s)	
	21	(Provision)	Factors to do with provision such as availability of facilities • coaching/courses/transport/health clubs	
	22	(School)	Limited school provision	
	23	(Cultural factors)	Cultural factors/ethnicity • Cultural reasons for participation	
	24	(Role Models)	Role models • impact of Olympic Games (eg Rebecca Adlington or Michael Phelps)	
	25	(Technology)	Such as hoists for disabled/teaching aids/leisure pools/wave machines	
	26	(Trend)	Trend for: ante-natal swimming or aqua aerobics or parent and baby/toddler swimming	
	27	(Triathlon)	Increasing interest in triathlon	

<table>
<tr><th>Question Number</th><th>Expected Answer</th><th>Mark</th></tr>
<tr><td colspan="2">Section A – Comparative Studies (Option A2)</td><td></td></tr>
<tr><td>2 (a)</td><td>
The dominant values of a country can affect participation and performance in physical activity within that country. Outline the dominant values in both the UK and the USA that can affect participation and performance in physical activity.

5 marks for 5 of
Sub max 3 from one section:

<table>
<tr><td colspan="3">The UK:</td></tr>
<tr><td>1</td><td>(democracy)</td><td>Democracy</td></tr>
<tr><td>2</td><td>(teamwork)</td><td>Teamwork</td></tr>
<tr><td>3</td><td>(individuality)</td><td>Individuality/each person unique</td></tr>
<tr><td>4</td><td>(fair play)</td><td>Fair play/sportsmanship</td></tr>
<tr><td>5</td><td>(competitiveness)</td><td>Competitiveness/desire to achieve</td></tr>
<tr><td>6</td><td>(participation)</td><td>Participation/(traditionally) taking part more important than winning</td></tr>
<tr><td>7</td><td>(overcoming discrimination)</td><td>overcoming discrimination/Multi-culturalism/fairness/egalitarianism/equal opportunity/social equality</td></tr>
<tr><td colspan="3">The USA:</td></tr>
<tr><td>8</td><td>(Lombardianism)</td><td>Lombardianism/win at all costs/ traditionally winning more important than taking part</td></tr>
<tr><td>9</td><td>(counter culture ethic)</td><td>(less dominant) counter culture ethic/taking part more important than winning</td></tr>
<tr><td>10</td><td>(radical ethic)</td><td>(less dominant) radical ethic/taking part and winning of equal importance</td></tr>
<tr><td>11</td><td>(rags to riches)</td><td>Rags to riches opportunities/ref American dream/Land of opportunity/work ethic/frontier spirit</td></tr>
<tr><td>12</td><td>(pluralism)</td><td>Pluralism/different ethnic or religious or political groups within one society/the theory that minority groups maintain cultural differences but share power</td></tr>
<tr><td>13</td><td>(hegemony)</td><td>Hegemony (or control or domination or power or authority held by certain group)/key roles or positions held by dominant societal group/WASP domination</td></tr>
</table>
</td><td></td></tr>
</table>

<table>
<tr><th>Question Number</th><th>Expected Answer</th><th>Mark</th></tr>
<tr><td>2 (b)</td><td>

Describe strategies and provision for mass participation in physical activity in the USA.
Explain why opportunities for mass participation are considered to be greater in the UK than in the USA.

5 marks for 5 of:
Sub max 3 from either section:

<table>
<tr><td colspan="3">Strategies/provision in the USA:</td></tr>
<tr><td>1</td><td>(Title IX)</td><td>Title IX/equality of provision/equality of funding</td></tr>
<tr><td>2</td><td>(role models)</td><td>Promotion of role models to encourage participation</td></tr>
<tr><td>3</td><td>(midnight leagues)</td><td>Community provision or initiatives/midnight leagues</td></tr>
<tr><td>4</td><td>(named initiatives)</td><td>Accept named contemporary community initiative/s eg Hook a Kid on golf</td></tr>
<tr><td>5</td><td>(schools)</td><td>School provision/intra-mural sport</td></tr>
<tr><td>6</td><td>(camps)</td><td>Summer camps such as private or state or weight management or hockey</td></tr>
<tr><td>7</td><td>(little league)</td><td>Little league/Pop Warner or Biddy basketball or Peewee baseball or other example of little league/community sports teams</td></tr>
<tr><td>8</td><td>(gym)</td><td>(private) gym/gym at work/jogging culture/country clubs</td></tr>
<tr><td colspan="3">Explanation of greater opportunities in UK:</td></tr>
<tr><td>9</td><td>(club)</td><td>More community or club provision/community or taster days/in USA (mainly) limited to private clubs eg gym culture</td></tr>
<tr><td>10</td><td>(mass participation)</td><td>greater emphasis on excellence/winning in USA/USA selection by professional sport/scholarship increase drop out in USA</td></tr>
<tr><td>11</td><td>(money)</td><td>High level sport less commercial/money to be made from participation as well as spectatorism in UK</td></tr>
<tr><td>12</td><td>(tradition)</td><td>Tradition of participation in UK/tradition of spectatorism in USA/more common to watch than play in USA</td></tr>
<tr><td>13</td><td>(initiatives)</td><td>Government or school or NGB or other initiatives for participation and healthy lifestyles in UK</td></tr>
<tr><td>14</td><td>(NC)</td><td>National curriculum for schools (and subject aims of exams in PE) emphasises participation and healthy balanced lifestyles</td></tr>
<tr><td>15</td><td>(training)</td><td>Training opportunities via NGB or JSLA (CSLA/HSLA)</td></tr>
<tr><td>16</td><td>(mini games)</td><td>Mini versions of major games such as Kwik cricket</td></tr>
<tr><td>17</td><td>(HCC)</td><td>Home country council or target group work to increase participation</td></tr>
<tr><td>18</td><td>(funding)</td><td>Lottery funding/funding from government agencies/other organisations</td></tr>
</table>

</td><td></td></tr>
</table>

<table>
<tr><th>Question Number</th><th>Expected Answer</th><th>Mark</th></tr>
<tr><td>2 (c)</td><td>

Explain the growth and development of association football in Australia. How does this compare with the development of association football in the UK?

5 marks for 5 of:
Sub max 3 from Australia or UK

<table>
<tr><th colspan="3">Growth and development of football in Australia</th></tr>
<tr><td colspan="3">Early days:</td></tr>
<tr><td>1</td><td>(ethnicity)</td><td>Game associated with (relatively recent) immigrants</td></tr>
<tr><td>2</td><td>(no accepted)</td><td>Australia wanted own game/game not accepted or adopted initially</td></tr>
<tr><td>3</td><td>(concern)</td><td>Concern that soccer would become top sport (above rugby code/s and Aussie rules)</td></tr>
<tr><td>4</td><td>(violence)</td><td>Spectator and player violence associated with ethnic rivalry (made it widely unacceptable)</td></tr>
<tr><td>5</td><td>(media/spon)</td><td>Limited media interest or sponsorship</td></tr>
<tr><td colspan="3">More recently:</td></tr>
<tr><td>6</td><td>(NGB)</td><td>Improved leadership or efficiency of governing body/Gov Body has improved image of the game eg teams can no longer have ‘home’ country ref in name eg Sydney Hellas now Sydney Knights</td></tr>
<tr><td>7</td><td>(ethnicity)</td><td>Reduced ethnic troubles as ethnic origin teams no longer recognised</td></tr>
<tr><td>8</td><td>(media/ sponsorship)</td><td>Increased media coverage or support or interest or sponsorship/merchandising</td></tr>
<tr><td>9</td><td>(school/ community)</td><td>Popular in schools or communities</td></tr>
<tr><td>10</td><td>(AIS - elite)</td><td>Supported by AIS</td></tr>
<tr><td>11</td><td>(role models)</td><td>Role models/Australian players in European leagues or English Premiership</td></tr>
<tr><td>12</td><td>(success)</td><td>(raised profile due to): increased international success of national team/success in (2006) World Cup</td></tr>
</table>

</td><td></td></tr>
</table>

Question Number	Expected Answer	Mark
2 (c) continued		

Comparison with development of football in UK:		
13	(mob game)	(Different) - started as mob or pre-industrial or violent game/earlier development than in Australia
14	(public schools)	(Different) - taken into C19th public schools (and cleaned up)
15	(Amateurism)	(Similar) - amateurism/amateur at school or local club level
16	(working class)	(Different) - became working class game/ the people's game/game of urban industrial Britain/factory teams
17	(professionalism)	(Different)- professionalism developed early/opportunity for working class/escape from factory/
18	(ethnicity)	(different) growth not linked with ethnicity/linked with class/the game can be a chance for upward social mobility or star status for those from minority groups
19	(violence)	(similar) some violence by players and/or spectators sometimes/(similar) work done to limit such troubles BUT not elusively linked to ethnicity
20	(media/ sponsorship)	(similar) massive media impact and/or influence/ref golden triangle
21	(NGB)	FA a highly efficient business/various campaigns eg 'respect'

2 (d) **18-20**	**Compare the provision for Physical Education and school sport in Australia and the UK. To what extent do cultural factors influence provision for Physical Education and school sport in Australia?** **A2 level descriptors** **Level 4:- 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. **Discriminators from L3 are likely to include:** • ***reference to negatives (in spite of good provision) eg obesity*** • ***effective comparisons that are well structured within answer*** • ***comprehensive coverage of cultural factors that influence provision with analysis/evaluation of relative influence.***	
13-17	**Level 3:- a competent answer** • good knowledge & 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. **Discriminators from L2 are likely to include:** • ***good attempts at comparison*** • ***a greater number of points made/more depth to answer*** • ***competent coverage of cultural factors that influence provision with an attempt at analysis/evaluation of relative influence.***	
8-12	**Level 2: - a limited answer** • limited knowledge & 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. **Discriminators from L1 are likely to include:** • ***attempts at comparisons*** • ***some understanding of links between culture and provision with possible attempts at analysis /evaluations.***	
0-7	**Level 1: - a basic answer** • basic knowledge & 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.	

Indicative content

	PE in Australia:	Similarities with UK:
Positive evidence		
1 (SEPEP)	• (SEPEP – sport education and physical education programme) 100 minutes per week for both PE and sport/framework can be adapted by schools	Schools Not similar • UK has National curriculum
2 (school games)	Intra and Inter school games • Pacific games	Similar in most schools/ • work of SSCOs/ variable provision
3 (options)	Range of options that increase likelihood of participation	Similar in most schools • work of SSCOs/ variable provision
4 (Fundamental Skills Programme)	Fundamental Skills Programme • basic skills for junior schools/ /skilfulness likely to encourage continued participation	Not similar • work of SSCOs/ non-specialists in junior schools Similar • Active sport/top sport/ dragon sport
5 (PASE)	(PASE - Physical and sport education) • professional development (INSET) programme for (non-specialist) teachers	Some similarity as INSET available • BUT less opportunity for PE specific INSET for non-specialists/ pressure on INSET budgets
6 (sport linkage)	• School club links sharing of facilities/pathway for talented children to progress to clubs	Similar • more for interest than necessarily talent
7 (exemplary schools)	Exemplary schools • (with good programmes funded to) share good practice	Not similar • however - beacon schools or independent schools often highly regarded
8 (sport/talent search)	Sports or Talent Search/Talent ID	Similar/Idea copied • ref Talent ID for 2012
9 (awards)	State awards/awards for achievement • de Coubertin award for non sporting achievement (eg participation or fair play)	Some similarities with local awards

	10 (role models)	Elite athletes as role models	Some similarity/but less structured use of role models/funding does not depend on their work	
	11(sports leaders)	Sports leaders • (older students who help teacher/sports leadership part of syllabus/sports leadership include coaching, officiating, leading	• CSLA available to some/coaching, officiating/leading part of examination PE	
	12 (YDP)	Youth development programme – quality Outdoor Ed programme/D of E	• D of E/ outdoor education programmes	
	However			
	13 (obesity)	Serious obesity problems	Similar	
	14 (inactivity)	Problems with inactivity in young people • Post-16 drop out	Similar	
	Cultural factors – influence on provision for PE/Sport in Australia			
	15 (historical 1)	Copy of UK system • eg house competitions		
	16 (historical 2)	British sports adopted in schools		
	17 (geography)	Favourable climate for outdoor sports • high status of swimming in schools due to favourable climate		
	18 (O Ed)	High status of O Ed due to environmental factors		
	19 (Govt)	School sport high on federal or state agendas • good support for school sport		
	20 (social determinants)	Egalitarian society • antidiscrimination/sport for all/equality of opportunity, provision and esteem		

Question Number	Expected Answer	Mark
Section B - Sports Psychology (Option B1)		
3	**Performers in sport who are doing well in competition are often described as being 'in the zone'. Explain what is meant by the zone of optimum functioning.**	
(a)	**4 Marks for:** (zone of optimum functioning) 1 An emotional/affective response/enjoyment/satisfaction/ fulfilment. 2 (Described as) peak flow experience. 3 Associated with the elite/very good performers/good performance 4 High level of confidence/sports confidence/self efficacy 5 Is relaxed/lack of stress response/not anxious 6 Ideal/ optimal level of arousal of the performer/high level of motivation that is under control/high level of inner drive/self motivation/optimum level differs between individuals 7 Performer has maximum concentration and effort/focussed/has appropriate attentional control/(often) narrow/internal attention/cue utilisation is good 8 Movements are automatic/little conscious control/autonomous	**[4]**
3 (b)	**Explain, using practical examples, how goal-setting could be effectively used to improve participation in physical activity.** **5 Marks for:** (Explanation must involve a reason via example) 1 Goals should be specific/directly linked to an outcome/focussed eg. to improve CV fitness/focus 2 Goals should be measurable/an objective aspect that is measured eg. participate three times per week 3 Goals should be achievable/within reach/attainable/realistic/get success eg. choose an activity that I am confident in 4 Goals should be relevant/at the right level/challenging eg. join in with friends activities 5 Goals should be time-phased/include short and long term objectives eg. go to some taster sessions and then join the activity on a year's subscription 6 Goals should be evaluated/use of self-assessment/reviewed eg. make a self assessment about how you feel about the physical activity 7 Goals should be recorded/records kept/written account/enables accountability eg. record the times you exercise each week 8 Goals should be agreed/shared with all parties/other team members/agreement between coach and athlete/negotiated/accepted eg. agree your goals with the personal fitness trainer 9 Goals should be positive rather than negative/motivational/give sense of worth/avoid learned helplessness/exciting eg. try an adventurous activity that is to do with taking part rather than winning.	**[5]**

Question Number	Expected Answer	Mark
3 (c)	**Using practical examples, explain the possible positive and negative effects of an audience on sports' performance.** 6 marks for: 1 Arousal/drive/anxiety increased/over-aroused 2 Dominant response/habit more likely to occur/learned responses automatic/motor programmes are run 3 Weaker players/novices performance deteriorates/incorrect dominant response/can lead to learned helplessness 4 Good performances from well learned/stronger/elite/correct dominant response produced/can lead to mastery orientation 5 Extroverts likely to perform better with an audience/Reticular activating system (RAS) favours extroverts when audience present 6 Introverts likely to perform worse with audience present/RAS does not favour introverts 7 If audience in familiar setting performance helped/'homefield' advantage/disadvantage if away/unfamiliar/hostile environment 8 Anxiety raised by being judged/perceived judgement of others/evaluation apprehension/the nature of the audience/who is in the audience 9 Proximity of the audience/how close the crowd are to the player 10 Distractions/widening of attentional focus/utilisation of too many cues 11 Attention narrows for those who are used to audiences/high levels of ability/ optimum cue utilisation 12 Depends on task/gross/dynamic skills helped or fine/complex skills hindered	**[6]**

3 (d)	**The following is a typical statement made by a young person who has given up sport and leads an unhealthy lifestyle:** ***'I think sport is boring. I am no good at it, I don't enjoy it and I can think of better things to do on a Saturday afternoon. '*** **Using attribution and attitudinal theories, evaluate critically the reasons why this young person does not participate in sport. How might you persuade this young person to once again take up sport?** **A2 level descriptors**	
18-20	**Level 4:- 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. **Discriminators from L3 are likely to include:** • ***good use of both attribution <u>and</u> attitudinal theories with correct psychological terminology*** • ***consistent link to participation*** • ***possible drawbacks of using strategies***	
13-17	**Level 3:- a competent answer** • good knowledge & 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. **Discriminators from L2 are likely to include:** • ***use of both attribution and attitudinal theories with psychological terminology*** • ***mostly link to participation*** • ***some relevant reformative strategies identified.***	
8-12	**Level 2:- a limited answer** • limited knowledge & 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. **Discriminators from L1 are likely to include:** • ***may not have both attribution and attitudinal theories with little psychological terminology*** • ***links to participation rarely made*** • ***few relevant reformative strategies identified.***	
0-7	**Level 1:- a basic answer** • basic knowledge & 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.	

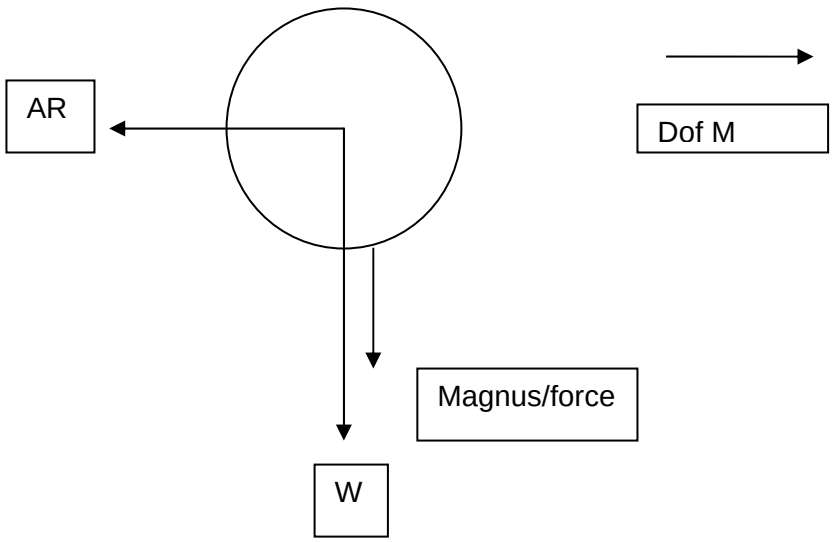
3 (d) continued	**Indicative content:** 1 Attitudes arisen from previous experience • Poor experiences reinforced by significant others 2. Attitudes affected by beliefs / feelings and behaviour • Triadic model • attitudes that are stable known as consonance 3. Attitudes are shaped via role models • More likely to copy significant others • Influence of peers and other groups 4 Attitudes shaped by cultural reasons / expectations • Examples of cultural restrictions • Religious beliefs / cultural norms 5 Attribution given sport is boring is a belief • cognitive element. 6 Therefore lack of motivation to participate • Could lead to dysfunctional behaviour / leading others down an unhealthy route / bad influence 7 Gives a reason that he may be comfortable with/devalues sport • low status of sport/he is too good for such trivia 8 Attribution (I am no good at it) gives sense of helplessness • learned helplessness 9 This is an internal stable attribution • Weiner's model 10 Leads to lack of self-esteem/lack of confidence • Links to confidence factors 11 Attribution (I don't like it) is an affective/emotional attitudinal element 12 Leads to lack of motivation/interest/fear 13 (think of better things to do) - attributes non participation to lack of meaning /usefulness of sport • Counter-cultural attitudes / wanting to be different 14 Attribution show behavioural attitude in line with cognitive and affective elements • shows consonance/non-participant is happy/comfortable with attributions and attitudes/sees little reason to change 15 Attributional retraining • change internal to controllable • change stable factors to unstable factors • change external to internal factors 16 Attitude change • via cognitive dissonance theory/changing at least one element of the triadic model/change one or more of cognitive, affective and behavioural elements • change their beliefs/value of participation	

	17 Persuasion/persuasive communication • needs to be from high status model/role model/significant other • message relevance 18 Use of positive reinforcement/encouragement • developing new S-R bonds/ operant conditioning 19 Use of vicarious experiences/watching others who are getting something out of sport 20 Give success/less emphasis on competition/make it enjoyable • redefine success/raise confidence/self-efficacy 21 Lower anxiety/arousal (through encouragement). • Arousal affected in different ways / inverted U / catastrophe theories	**[20]**

Question Number	Expected Answer	Mark
Section B - Biomechanics (Option B2)		
4 (a)	**Identify the three main axes of rotation and give a sporting example for each.** **3 marks for 3 from:** (must have sporting example to gain mark) 1 Longitudinal (top to bottom) eg spinning skater or eq 2 Transverse (side to side) eg somersault or eq 3 Frontal (front to back) eg cartwheel or eq	**[3]**
4 (b)	**What is meant by the term centre of mass and how does this help to explain why the Fosbury Flop is the preferred technique for the high jump?** **4 marks for 4 from:** **Submax of 2 marks from** (centre of mass) 1 CM is the point at which a body is balanced in all directions 2 It is the point at which weight appears to act 3 Its position depends on the distribution of mass/can change position when body shape changes 4 It follows a predetermined flight path/height that CM reaches is predetermined at take off. **Submax of 3 marks from** (Fosbury Flop) 5 Due to arching/hyperextension of back/shape of FF 6 CM can be positioned outside the body 7 Therefore, CM can pass underneath the bar as body goes over it 8 Whereas other techniques/straddle/western roll 9 Where CM stays within body 10 CM has to pass over the bar.	**[4]**

Question Number	Expected Answer	Mark
4 (c)	**If the mass of the tennis player is 80kg, calculate his weight W and the moment of force caused by the weight (Assume the acceleration due to gravity is 10ms^{-2}).** **Show all your working.** **State the Principle of Moments and calculate the force F needed by the gastrocnemius and soleus for this system to remain balanced.** **Explain why this lever system is more efficient than that of the elbow during a bicep curl.** **6 marks for:** (weight) 1 W = mg/W = 80 x 10 2 W = 800 N/newtons. **(principle of moments)** 3 Moment of Force = Force x (perpendicular)distance from fulcrum/ = 800 x 0.2 4 Moment of Force = 160Nm/Newton metres 5 Principle of Moments states that Clockwise moments = Anticlockwise moments/ 0.25F = 160/F = 160/0.25 6 F = 640N/newtons. **2 marks from** **(efficiency of levers)** 7 Ankle/ball of foot is a class 2 lever whereas the elbow is a class 3 lever/or opposite 8 Load/weight is closer to the fulcrum than effort/force of muscle contraction/opposite 9 Therefore, less effort is required to balance an equivalent load /or opposite.	**[8]**

Question Number	Expected Answer	Mark
4 (d)	**Sketch a free body diagram to show the forces acting on a ball with topspin during flight.** **Examine the effects of different types of spin on a ball during flight and when bouncing.** **Evaluate the advantages and disadvantages of each type of spin in sport.** **A2 level descriptors**	
18-20	**Level 4:- 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. **Discriminators from L3 are likely to include:** • ***free body diagram to show all forces correctly*** • ***description of effect of all 3 main types of spin on both flight path and bounce of a ball*** • ***good range of advantages and disadvantages of all types of spin with substantial and relevant examples from sport. Top end of this level will cover advantages and disadvantages of both flight path and bouncing balls.***	
13-17	**Level 3:- a competent answer** • good knowledge & clear understanding • good analysis and critical evaluation • independent opinion 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. **Discriminators from L2 are likely to include:** • ***free body diagram showing all forces*** • ***description of the effect of most of the types of spin on both the flight path and bounds of a ball*** • ***a range of advantages and disadvantages of most types o spin with some relevant examples from sport. Bottom end of this level may not cover the advantages/disadvantages of spin on eight flight path or bounce of a ball.***	
8-12	**Level 2:- a limited answer** • limited knowledge & 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.	

Question Number	Expected Answer	Mark
4 (d) continued	**Discriminators from L1 are likely to include:** • ***free body diagram shows some of the forces accurately but at the lower end of this level they are shown inaccurately*** • ***description of the effects of some types of spin on the flight path and bounce of a ball*** • ***some advantages/disadvantages are covered with limited accuracy. To reach the higher end of this level candidates should make reference to both flight paths and the bounce of the ball.***	
0-7	**Level 1:- a basic answer** • basic knowledge & 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.	
	Indicative content **(Free body diagram)** 1 W/weight acting from CM of the ball 2 AR/air resistance acting from CM opposite the direction of motion 3 Magnus/force acting downwards perpendicular to direction of motion  **(Effects of spin on flight path)** 4 All spins cause non parabolic/asymmetrical flight paths 5 Spin gives stability in flight 6 (Advantage) More accuracy eg Shooting in football 7 (Disadvantage) More predictable flight path which makes it easier for opposition/no spin makes for less predictable flight path eg Ronaldo free kick/volleyball serve	

	(Topspin-flight) 8 Topspin makes flight path shorten 9 (advantage) Can hit ball harder and still goes in eg topspin drive in table tennis 10 (advantage) Can confuse opposition where ball will land eg flipper in cricket 11 (disadvantage) Lose distance eg drive in golf 12 Topspin makes ball dip in flight 13 (advantage) Can hit ball higher over obstacles and still go in eg volley over GK in football 14 (disadvantage) If not hit high enough ball hits obstacle eg topspin drive in tennis **(Backspin-flight)** 15 Backspin makes flight path lengthen 16 (advantage) Hit ball further eg drive in golf 17 (disadvantage) Ball travels too far before landing eg sliced backhand in tennis 18 Backspin makes ball hang in the air	
	19 (advantage) Gives more time to recover before next shot eg defence in table tennis 20 (disadvantage) Gives opponent more time to attack eg opponent can move into volley in tennis **(Side spin-flight)** 21 Sidespin makes ball swerve in flight 22 (advantage) Can move ball around obstacles eg free kick around a wall in football 23 (disadvantage) Ball can deviate too far eg slice/hook in golf **(Effect of spin on bounce)** 24 Spin can cause balls to bounce in unpredictable fashion 25 (advantage) Confuse opponent eg leg break in cricket 26 (disadvantage) Confuse team mates eg passes with spin in football **(Topspin-bounce)** 27 Topspin makes ball shoot forward when bouncing 28 (advantage) Keeps opponent back/from attacking eg tennis 29 (advantage) Can keep ball lower eg drive in squash/flipper in cricket	
	(Backspin-bounce) 30 Backspin makes ball sit up on bouncing 31 (advantage) Drop shots with backspin make opponent move further eg tennis 32 (advantage) Gives more control over ball on landing eg pitch in golf 33 (disadvantage) Easy for an opponent to attack eg tennis **(Sidespin-bounce)** 34 Sidespin does not cause deviation on bouncing 35 (advantage) Ball carries on swerving after bouncing eg slice serve in tennis 36 (disadvantage) Ball can swerve too much after bouncing eg low shot in football	**[20]**
	TOTAL	**[35]**

Question Number	Expected Answer	Mark
Section B - Exercise and Sport Physiology		
5 (a)	**The recovery process returns the body to its pre-exercise state. Describe the main processes involved in the alactacid component of recovery.** **5 marks in total** 1 The alactacid component occurs first 2 using some of the excess post exercise oxygen consumption 3 process restores the ATP (and) PC stores depleted during exercise 4 The energy for these (reversible) endothermic reactions; 5 is made available by the aerobic breakdown of fats and carbohydrate/uses aerobic system 6 the alactacid component takes between two and three minutes for full recovery 7 and uses up to 4 litres of oxygen/O_2 consumption remains high 8 It takes approximately 30 seconds to resynthesise 50% of PC stores 9 During this component the myoglobin oxygen stores are replenished	**[5]**
5 (b)	**Explain what is meant by the term metabolic equivalent. How can knowledge of METs be useful to a performer?** **4 marks in total** ***Sub max 3 marks – what is meant by*** 1 MET/metabolic equivalent is a way of expressing energy cost 2 is the ratio of the work metabolic rate to the resting metabolic rate 3 it estimates the energy cost of an activity by amount of oxygen consumed 4 one MET is equivalent to the resting VO2 (3.5 ml/kg/min) 5 one MET is equal to a specific calorific amount (0.0175kcal/kg/min or 1kcl/kg/hr) ***sub max 2 marks – how it helps the performer*** 6 low intensity activity will be equivalent to small number of METS (eg walking is 2METS)/high intensity activity higher number of METS/to know how hard they are working 7 can calculate the overall energy cost of a training session/workload 8 can adjust diet according to the number of calories burned 9 can use METS to estimate BMR	**[4]**

Question Number	Expected Answer	Mark
5 (c)	**Carbohydrates are a valuable source of energy.** **Why is it important for a performer to ensure that they have adequate supplies of carbohydrate? How can a performer make sure that they don't deplete their stores of carbohydrate?** **6 marks in total** ***Sub max 3 marks –why are they important*** 1 carbohydrate is the only fuel that can be broken down anaerobically/needed for high intensity work for more than 10 secs 2 carbohydrate can also be broken down aerobically/main fuel for first 20 mins of exercise 3 carbohydrate is needed to ensure the efficient breakdown of fats 4 there are limited stores of carbohydrate in the body 5 carbohydrates contain 4Kcals per gram ***sub max 3 marks – how can stores be maintained*** 6 performer can eat a high carbohydrate diet 7 performer can carbo-load before an event/glycogen sparing 8 performer can eat a high carbohydrate meal before the event (low GI foods) 9 performer can drink/eat carbohydrates during event eg banana/sports drink 10 performer can replace carbohydrates used immediately after the event (high GI foods/drink) 11 pacing during event/take opportunities to recover	

5 (d) **18-20**	**Devise a six month training programme that will develop aerobic capacity. Justify your programme by referring to the theory of periodisation and the principles of training.** **A2 levels descriptors** **Level 4:- 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. **Discriminators from L3 are likely to include:** • ***creation of a detailed and appropriate progressive 6 month programme*** • ***training aims of each cycle clearly stated*** • ***excellent justification of programme with reference to both periodisation and training principles*** • ***appropriate monitoring and evaluation throughout programme included.***	
13-17	**Level 3:- a competent answer** • good knowledge & 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. **Discriminators from L2 are likely to include:** • ***creation of a 6 month progressive programme with micro, meso and macro cycles identified*** • ***overall training aim stated for the programme*** • ***good justification of the programme with reference to training principles*** • ***initial evaluation of aerobic capacity used to set goals***	
8-12	**Level 2:- a limited answer** • limited knowledge & 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. **Discriminators from L1 are likely to include:** • ***creation of a 6 month programme with some progression shown*** • ***some justification of the programme given with reference to training principles*** • ***general aim of programme given but with no reference to periodisation or monitoring and evaluation.***	

0-7	**Level 1:- a basic answer** • basic knowledge & 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.	
	Indicative content **(Periodisation)** 1 Initial assessment • age/current activity levels/PARQ/health screening/aim 2 Fitness testing • multi-stage fitness test to estimate VO_2 max • Cooper 12 minute run based on distance covered • PWC170 use of HR 3 Macrocycle • Long term objective/usually year/could be 6 months for some sports • Reach physiological peak at right time • Increase VO_2 max/increase % VO_2 max at which OBLA occurs • Made up of a number of mesocycles 4 Mesocycle • Medium term objective/1 to 4 months/depends on sport/objective • Increase in CV endurance • Could be pre-season/competitive/off season • Made up of a number of microcycles 5 Microcycle • Short term objective/1 to 3 weeks/recurrent units • Made up of a number of training sessions 6 Pre-season • Characterised by development of basic all round fitness • Progressively increase in intensity/focus on aerobic fitness 7 Tapering • Close to event training load reduced/recovery periods longer • Ensure fuels/glycogen levels are high for event 8 Competitive season • Maintenance of aerobic fitness levels • Training sessions reduced to avoid burn out 9 Off/transition season • Rest/low level activity/active recovery/cross training **(Principles of training)** 10 Specificity • Muscles used/movement patterns/fibre type/energy system 11 Moderation • Prevent injury/allow sufficient recovery/particularly at start 12 Overload • Make body work harder/increase stress on the body • Increase frequency/intensity/time or distance/type	**[20]**

	13 FITT • (F) 2/3+ a week • (I) 60-80% VO_2/HR max • (T) 20+ mins/3km+ 14 Continuous/Fartlek • All body exercises • Running/swimming/cycling • altitude 15 Interval training • 1 set of 3-4 reps • work interval 3+ mins • work-relief ratio 1:1/0.5 16 Progression • Once adaptations have been made further increases in workload • Increase frequency/intensity/time/distance by 10% • Best to increase time/distance as overloading aerobic 17 Variance • Different types of training • Different types of exercise • Prevent boredom/overuse injury/maintain motivation 18 Monitoring/evaluating • Training diary/regular testing • Reversibility • Conduction of a gap analysis	

Grade Thresholds

Advanced GCE Physical Education H154 H554
January 2010 Examination Series

Unit Threshold Marks

Unit		Maximum Mark	A*	A	B	C	D	E	U
G451	Raw	90	n/a	53	47	41	35	29	0
	UMS	120	n/a	96	84	72	60	48	0
G452	Raw	105	84	75	66	57	48	39	0
	UMS	140	126	112	98	84	70	56	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
H154	200	160	140	120	100	80	0

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

	A	B	C	D	E	U	Total Number of Candidates
H154	4.95	15.64	39.11	72.67	95.74	100	1010

1010 candidates aggregated this series

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

Statistics are correct at the time of publication.

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