

Physical Education

Advanced Subsidiary GCE

Unit **G451**: An Introduction to Physical Education

Mark Scheme for June 2011

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Section A – Anatomy and Physiology		Additional Guidance	
		Accept	Do not accept
1 (a)(i)	Define stroke volume and give a resting value for the average adult. (2 marks)		
Definition and value of stroke volume			
1 (stroke volume)	The volume of blood ejected from ventricle/s or heart per beat or per contraction	The amount of blood pumped out of the heart per beat or per contraction / $SV = EDV - ESV$	The amount of blood pumped around the body per beat or per contraction
2 (resting value)	(any value between) 60 – 90ml	Range if one value given is between 60 and 90ml.	
1 (a)(ii)	Describe the changes that take place to stroke volume from rest to maximal exercise levels. (3 marks) Description of changes to stroke volume during exercise		
1 (SV increases)	Stroke volume increases (with exercise intensity) / More blood is pumped out (of the ventricle/s) per beat	Graph that shows these points.	
2 (SV plateaus)	SV plateaus or peaks / SV reaches a maximum value (during sub-maximal exercise) ...		
3 (SV decreases)	...(then) SV decreases (slightly during maximal exercise) / SV decreases at very high exercise intensity or levels		
4 (maximum value)	Maximal stroke volume = (any value between) 120–200ml (per beat)		
5 (explanation)	(SV decreases because) HR is so high there is not enough time for the ventricles to fill (completely) during diastole or relaxation phase or before systole or contraction phase		
5 marks in total for question 1(a)			

		Accept	Do not accept
1 (b)(i)	Define blood pressure and identify diastolic values for a person suffering from hypertension. (2 marks)		
1 (definition)	The force or pressure exerted by blood against the walls of a blood vessel (artery) / blood flow x resistance	Any named blood vessel	
2 (hypertension values)	Diastolic = (any value between) 90–120 <u>mmHg</u>	Full bp reading if diastolic is within range ie 140/ <u>90mmHg</u> (millimetres of mercury)	
1 (b)(ii)	Describe <u>three</u> other effects of an active cool down on the vascular system of the performer. (3 marks) (Accept first three only)		
1 (metabolic activity)	Keeps metabolic activity elevated / gradually reduces heart rate or respiratory rate		Maintains heart rate / Maintains respiration
2 (capillaries)	Keeps capillaries dilated	Maintains vascular shunt mechanism / arterioles dilated = BOD	Keeps blood vessels or veins or venules dilated
3 (oxygenated blood)	Flushes oxygenated blood through the muscles or circulatory system	Maintains supply of oxygen to the muscles	
4 (waste products)	Removes waste products or CO ₂ or lactic acid / repays oxygen debt	Reduces lactic acid	Prevents build up of lactic acid / Prevents DOMS
5 (pump mechanisms)	(Maintains) action of (skeletal) muscle pump or respiratory pump		Pump on own
6 (blood flow /venous return)	maintains blood flow or stroke volume or cardiac output or blood pressure / venous return	SV for stroke volume / Q for cardiac output /	
7 (blood pooling)	Prevents blood pooling		
5 marks in total for question 1 (b)			

		Additional Guidance	
		Accept	Do not accept
1 (c)	Explain how the body controls the increased distribution of blood to the working muscles during exercise. (6 marks)		
1 (vascular shunt)	(using the) vascular shunt mechanism		
2 (receptors)	Chemoreceptors detect increase in (blood) acidity or an increase in (pp)CO ₂ or decrease in pH or in (pp)O ₂ / proprioceptors detect movement/ baroreceptors detect increase in pressure		Receptors on own
3 (vasomotor control centre)	(Information sent to the) <u>vasomotor</u> (control) centre or VCC (in the medulla oblongata)		
4 (sympathetic nervous system)	(VCC) uses the sympathetic nervous system (to...)		
Muscles:			
5 (nerve impulses)	... decrease nerve impulses or sympathetic stimulation to the arterioles or pre-capillary sphincters or PCS leading to the muscles	(blood) vessels /arteries / to areas with the greatest demand for O ₂	Capillary sphincter on own / veins / venules
6 (vasodilation of arterioles)	... vasodilate the arterioles leading to the muscles	(blood) vessels /arteries / dilate or get bigger for vasodilate / ... to areas with greatest demand for O ₂	veins / venules
7 (pre-capillary sphincters)	... relax or vasodilate the pre-capillary sphincters or PCS leading to the muscles	(blood) vessels /arteries / ... to areas with the greatest demand for O ₂	Capillary sphincter on own
Other organs: Accept the following other named organs: liver, kidneys, any part of the digestive system			
8 (nerve impulses)	... increase nerve impulses or sympathetic stimulation to the arterioles or pre-capillary sphincters or PCS leading to the organs	(blood) vessels / arteries / ... to areas with the least or less demand for O ₂	Capillary sphincter on own/ veins / venules
9 (vasoconstriction of arterioles)	... vasoconstrict arterioles leading to the organs	(blood) vessels/arteries /constrict/contract/narrow/get smaller for vasoconstrict/ ...to areas with the least or less demand for O ₂	veins / venules
10 (pre-capillary sphincters)	... contract or vasoconstrict the pre-capillary sphincters or PCS leading to the organs	... to areas with the least or less demand for O ₂	Capillary sphincter on own
6 marks in total for question 1 (c)			

		Accept	Do not accept
1 (d)	Describe the mechanics of expiration during exercise. (4 marks)		
1 (active)	Expiration becomes active		
2 (muscles relax)	<u>External</u> intercostals <u>and</u> diaphragm relax	<u>and</u> diaphragm becomes dome shaped	
3 (additional muscles contract)	<u>Internal</u> intercostals or rectus abdominus or transverse abdominus or obliques contract	The named additional muscles without reference to contraction = BOD	Shortened versions of muscle names / Additional or more muscles on own / Scalenes /pectoralis minor /sternocleidomastoid/SCM
4 (rib cage)	(this) pulls the rib cage or ribs down <u>and</u> in . . .		
5 (diaphragm)	(and) forces the diaphragm up (further or with more force)		
6 (thoracic cavity volume)	decreasing the volume of the thoracic cavity / decreasing the volume in the lungs	Decreasing the size of the thoracic cavity / Chest or chest cavity / Decreasing thoracic cavity on own = BOD	Decreasing volume on own
7 (thoracic cavity pressure)	increasing the pressure within the thoracic cavity or in the lungs	Chest or chest cavity	Partial pressure of air or oxygen
8 (air)	forcing (more) air out of the lungs / increasing tidal volume / increasing volume of air expired / increasing rate of breathing or expiration	Breathe faster	
4 marks in total for question 1 (d)			

1 (e)	Critically evaluate the effect of an impact sport and a repetitive action sport on the skeletal system of a young performer. (10 marks)	
Level 3 8–10 marks	A comprehensive answer: <ul style="list-style-type: none"> • 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. 	At L3 responses <u>are likely</u> to include: <ul style="list-style-type: none"> • detailed understanding of the effects of an impact sport and a repetitive action sport with appropriate exemplification • detailed knowledge of both positive and negative effects of both types of sport • detailed understanding of the nature of bone and joint disorders • effective evaluation demonstrated in relation to effects
Level 2 5–7 marks	A competent answer: <ul style="list-style-type: none"> • 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. 	At L2 responses <u>are likely</u> to include: <ul style="list-style-type: none"> • satisfactory understanding of the effects of an impact sport and a repetitive action sport with exemplification • positive and negative effects • satisfactory understanding of the nature of bone and joint disorders • evaluation demonstrated with some success
Level 1 0–4 marks	A limited answer: <ul style="list-style-type: none"> • 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. 	At L1 responses <u>are likely</u> to include: <ul style="list-style-type: none"> • basic understanding of the effects of an impact sport and a repetitive action sport • positive and/or negative effects • basic understanding of the nature of bone and joint disorders • a limited attempt at evaluation

<p>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</p>	
<p>Impact Sports High Impact basketball, football, hockey, martial arts, netball, cricket (bowling/fielding), rugby, American football, Aussie rules, ice hockey, gymnastics. Low Impact any physical activity with minimal wear and trauma to weight-bearing joints: jogging, running, low-impact aerobics, swimming, cycling.</p>	
<p>Repetitive Action Sports Any activity where a specific joint or joints continuously perform a particular movement: cricket (batting/bowling/throwing), golf, racket sports, swimming (arm action), jogging, cycling, marathon running</p>	
<p>Positive effects on skeletal system:</p>	
<p>1</p>	<p>Increased bone density or bone health</p> <ul style="list-style-type: none"> • increased collagen or calcium or mineral deposits within the bone • (this) strengthens or thickens the bone helping to prevent injury • protects against stress fractures/growth plate injuries/shin splints/Osgood Schlatter's
<p>2</p>	<p>Can help prevent osteoporosis</p> <ul style="list-style-type: none"> • especially in teenagers susceptible to the disease • osteoporosis is reduced bone density or mass / deterioration or weakening of bone • normally associated with older people / women / but can affect younger people <p>eg bones in hip or spine or wrist are most commonly affected</p>
<p>3</p>	<p>Increased health or stability of joints</p> <ul style="list-style-type: none"> • ligaments or tendons or muscles around joints strengthen • increased muscle tone • helps prevent breaks or stress fractures or dislocations or sprains <p>eg strengthening the rotator cuff muscles helps prevent dislocation of shallow shoulder joint (rotator cuff = supraspinatus, infraspinatus, teres minor, subscapularis)</p>
<p>4</p>	<p>Reduced risk of osteoarthritis or arthritis</p> <ul style="list-style-type: none"> • articular cartilage thickens • joints are better cushioned / better able to withstand forces or absorb shock • articular cartilage (is a smooth, tough structure which) covers the end of long bones • it helps to reduce friction between bones • increase in synovial fluid or lubrication within joint leading to increased joint mobility or joint flexibility • osteoarthritis in young people is most common in weight bearing joints <p>eg knee / hips / ankles.</p>

5	<p>Improved posture and alignment</p> <ul style="list-style-type: none"> increased strength or tone of core stability muscles eg multifidus / transverse abdominus reduces the chance of lower back pain / can prevent excess pressure on lumbar area (of the lower back) increased strength or tone of rotator cuff muscles can be associated with good posture
6	<p>Weight maintenance or reduction</p> <ul style="list-style-type: none"> can put less stress on skeletal system / can reduce risk of injuries / can reduce risk of osteoarthritis can help to maintain BAML in later life can help prevent sedentary lifestyle when young that can lead to osteoporosis in later life
<p>Negative effects on skeletal system:</p>	
7	<p>(Increase risk of) Osteoarthritis or arthritis</p> <ul style="list-style-type: none"> osteoarthritis is a degenerative disease caused by loss or wear and tear of articular cartilage (at the ends of long bones) injuries or poor technique can increase deterioration of articular cartilage (this causes) a loss of synovial fluid causing pain or swelling or limiting joint movement can lead to formation of bone spurs or friction between the surfaces of the bones greater risk of OA from high impact and repetitive action sports than from low impact sports OA may result in surgery eg weight bearing joints or hip joints or knee joints are particularly susceptible
8	<p>(Increased risk of) Growth Plate Injuries or Growth Plate damage</p> <ul style="list-style-type: none"> the growth plate is the weakest area of the bone it is the (delicate) area between the shaft and (each) end of a long bone or between the diaphysis and the epiphysis caused by sudden force through the bone (from high impact sport) eg high jump, basketball (lay up/rebound) etc caused by repetition of a particular movement eg volleys in tennis, bowling in cricket
9	<p>(Can lead to) Overuse or chronic injuries</p> <ul style="list-style-type: none"> more likely in repetitive action sports / common where one action is practised continually eg in racket sports / cricket etc eg tendinitis or tennis or golfer's elbow or stress fracture or shin splints or Osgood Schlatter's syndrome or chondromalacia patella or runner's knee or bursitis etc
10	<p>(Can lead to) Impact or acute injuries</p> <ul style="list-style-type: none"> more likely in impact sports eg contact in rugby, impact in gymnastics etc

	<p>eg dislocation or fracture or sprain or meniscus tear or ligament damage etc</p> <ul style="list-style-type: none"> ligament damage can lead to poor joint stability (acute injuries when young) can lead to osteoarthritis in later life
11	<p>Injury can limit or stop participation or lead to a forced sedentary lifestyle</p> <ul style="list-style-type: none"> which can lead to osteoporosis in later life
12	<p>Use of long term athlete development or LTAD guidelines</p> <ul style="list-style-type: none"> can help minimise risk of injury to young performer can help to achieve lifelong involvement in physical activity can help maximise chances of them reaching their potential
Some candidates may develop named injuries....	
	<p>Stress fractures</p> <ul style="list-style-type: none"> a stress fracture is a hairline crack in the bone commonly associated with tibia or fibula or metatarsals more likely in high impact sports <p>eg triple jump, netball and pivot leg bowling in cricket etc.</p>
	<p>Shin splints (periostitis)</p> <ul style="list-style-type: none"> inflammation of the outer lining (periosteum) of the tibia caused by running on hard surfaces or rapid increase high impact training
	<p>Osgood Schlatter's</p> <ul style="list-style-type: none"> painful swelling where the patella tendon attaches to the tibia high impact sports put young people at risk of Osgood Schlatters
	<p>Tennis elbow (lateral epicondylitis) / golfer's elbow (medial epicondylitis)</p> <ul style="list-style-type: none"> inflammation where the tendon attaches to the humerus
	<p>Chondromalacia patella or runner's knee</p> <ul style="list-style-type: none"> softening or degeneration of the articular cartilage of the patella
	<p>Bursitis</p> <ul style="list-style-type: none"> inflammation of the bursa bursa is a fluid filled sac that cushions a joint where friction is likely to occur
	<p>Ligament tears</p> <ul style="list-style-type: none"> knee joint particularly susceptible <p>eg anterior / posterior cruciate ligament, medial / lateral collateral ligament</p> <p>eg young footballers or rugby players</p>

Section B: Acquiring Movement Skills		Additional Guidance	
		Accept	Do not accept
2 (a)	<p>Describe, using a practical example for each, what is meant by positive, negative, proactive and retroactive transfer. (4 marks)</p> <p>Description + eg = 1 mark Award 2 marks max for description(s) without eg(s) Award mark when theory embedded within example</p>		
1 (positive)	<p>Where one skill or movement helps (the learning or performance of) another ... eg the learning of the over-arm throw can help the skill of the tennis serve (or other suitable example)</p>	has a good or beneficial effect etc.	has positive effect = RQ / when a skill is used to learn another or influences another / ref to sport rather than skill
2 (negative)	<p>Where one skill or movement hinders (the learning or performance of) another... eg the learning of the wrist action in the forehand in tennis can hinder the forehand in badminton (or other suitable example)</p>	has a bad or detrimental effect etc.	has negative effect = RQ / ref to sport rather than skill
3 (proactive)	<p>Where a (previously) learned skill affects (the learning and/or performance of) a new or current or future skill... eg a tennis player takes up badminton – the (previously) learned smash in tennis affects the learning of the overhead clear in badminton (or other suitable example)</p>	BOD for 'helps' or 'hinders' rather than affects	
4 (retroactive)	<p>Where the learning of a (new) skill affects (the performance of) a previously learned or past skill ... eg a tennis player takes up badminton – the learning of the badminton overhead clear affects the previously learned smash in tennis (or other suitable example)</p>	BOD for 'helps' or 'hinders' rather than affects	
4 marks in total for question 2 (a)			

2 (b)	Using practical examples, describe the nature of a motor programme. (4 marks) Sub max 3 for theory description(s) without examples Award 1 mark for example		
		Accept	Do not accept
1 (MP)	a motor programme is a series of movements / a movement pattern... eg a tennis serve or other suitable example of a motor programme		
2 (LTM)	...stored in or retrieved from long-term memory... eg how to ride a bike easily remembered		
3 (one decision/ one movement)	brought about by making one decision / one or first movement initiates (whole) motor programme... eg tennis player decides to serve and this brings about a series of linked actions / deciding to play a forehand and moving into position		
4 (sub routines)	made up of sub routines / linked or sequential or hierarchical sub routines ... eg preparation, grip, stance, etc of forehand in tennis / separate components of the forward roll in gymnastics		
5 (Practice)	Established through: rehearsal / practise / over-learning or training / grooved or autonomous or habitual or well learned / recalled easily... eg repeating the tennis serve / able to reproduce place kick		
6 (reinforcement/ feedback / SR bond RM)	Established by: reinforcement / feedback / creating an S-R bond / watching a role model... eg a teacher says 'well done' when you shoot the ball effectively in netball / watching an expert netball player (and wanting to copy them)	Knowledge of Results (KR)/ Knowledge of Performance (KP)	
Sub max 1 for example			
7 (example)	any example from 1 - 6 above		
4 marks in total for question 2 (b)			

		Accept	Do not accept
2	(c) Identify the <u>three</u> phases of learning movement skills and describe the characteristics of each phase. (6 marks)		
		Phases in any order	
Cognitive (sub max 2)			
1	<u>Cognitive</u> (phase)		
2	Leads to a mental image or picture (being formed) / mental rehearsal / Understanding of what needs to be done		Demonstration
3	Needs (conscious) thought or concentration on technique or sub routines		
4	Unable to use intrinsic or kinaesthetic feedback / only extrinsic feedback effective / reliant on verbal or visual cues / feedback needed		
5	Movement (often) lacks fluency or rhythm/movement jerky / trial and error a feature		Longest phase
Associative (sub max 2)			
6	<u>Associative</u> (phase)		
7	Matching or associating mental model with actual performance		
8	Motor programmes begin to be formed		
9	Practice or rehearsal occurs		
10	The following can be used: more detailed feedback / knowledge of results (KR) / knowledge of performance (KP) / kinaesthesia / kinaesthetic or intrinsic feedback / less reliant on extrinsic feedback		
11	(More) trial and error/learn from mistakes / fewer mistakes / more consistent or effective		Start to groove skill
12	Increased fluency or rhythm or efficiency / /movement less jerky / better timing		
13	Some never leave or move beyond this stage		Longest phase
Autonomous (sub max 2)			
14	<u>Autonomous</u> (phase)		
15	Accurate or (well) grooved or consistent or habitual or over learned / motor programmes fully formed (stored in LTM)	Few mistakes / mastered technique	No mistakes / natural / second nature
16	Fluent or rhythmic	effortless	
17	Little conscious control (needed) /automatic / spare attentional capacity / can focus on tactics or strategy or environment / skills can be adapted	minimum thought = BOD/ sub conscious	No thought
18	Able to use or rely on intrinsic or kinaesthetic feedback (effectively)		
19	May return to associative phase/ need to keep practising (to stay in this phase)		
6 marks in total for question 2 (c)			

		Accept	Do not accept
2 (d)	Describe the cognitive theory of learning. Give a practical example of how it might be applied to learning a movement skill and a practical example of how it might be applied to a healthy lifestyle. (6 marks)		
Description (sub max 4)			
1 (Problem solving)	(learning by) problem solving / (some) trial and error / problem not necessarily solved immediately		Reinforcement
2 (perception)	Involves perception or intelligence or reasoning / an intellectual or perceptual or mental process	makes sense of / works out	Involves the brain or thinking
3 (whole)	Gestalt / problem or situation or skill considered as a whole / (learning occurs by) thinking about the whole problem		
4 (insight/understanding)	insight (learning) or understanding / intuitive (learning)		
5 (intervening variables)	intervening variable (drawn together or made sense of)		
6 (learning optimised)	a way of thinking to optimise learning / schema broadened		
7 (past experience)	using past experience to form a response / using past experience to learn new movements or lifestyles		
Practical example of cognitive theory applied to learning a movement skill (sub max 1)			
Accept: Examples that show knowledge / understanding of aspect(s) of the theory			
8	<ul style="list-style-type: none"> teaching tennis serve or other skill as a whole (rather than in parts) giving players a problem similar to the real situation hoping they will come up with an effective solution players work out how to solve an off side trap / defenders understand that the back four must stay in line to play the opposition offside hockey players think about marking strategies footballers consider the situation and decide whether or not to shoot a golfer or cricketer learns from experience the best way to strike the ball 		
Practical example of cognitive theory applied to a healthy lifestyle (sub max 1)			
9	<ul style="list-style-type: none"> a person wants to improve body shape... they realise that increasing physical activity will help ... they start swimming interval training ... they feel healthier ... their body shape improves ... the problem has been solved working out the best way to keep fit / understanding that jogging reduces weight / returning to a particular training routine because it was successful before understanding the components of a healthy diet / understanding how a healthy diet contributes to a BAML / understanding the importance of 5-a-day understanding that commitment to an exercise programme improves BAML realising (insight) that if someone continues to increase the distance they run on the treadmill they will be better able to keep running throughout the netball game 		
6 marks in total for question 2 (d)			

		Additional Guidance
2 (e)	Evaluate critically the effectiveness of using part and whole practice methods in the learning of movement skills. (10 marks)	
Level 3 8–10 marks	A comprehensive answer: <ul style="list-style-type: none"> • 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. 	At L3 responses <u>are likely</u> to include: <ul style="list-style-type: none"> • a detailed explanation of whole and part practice methods with appropriate exemplification (whole-part-whole and/or progressive part may also be explained well) • detailed knowledge of positive and negative effects of both types of practice • effective evaluation demonstrated in relation to effectiveness of practice method
Level 2 5–7 marks	A competent answer: <ul style="list-style-type: none"> • 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. 	At L2 responses <u>are likely</u> to include: <ul style="list-style-type: none"> • a satisfactory explanation whole and part practice methods with appropriate exemplification (whole-part-whole and/or progressive part may also be explained) • satisfactory knowledge of positive and negative effects of both types of practice • evaluation demonstrated with some success
Level 1 0–4 marks	A limited answer: <ul style="list-style-type: none"> • 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. 	At L1 responses <u>are likely</u> to include: <ul style="list-style-type: none"> • some attempt at explanation of whole and part practice methods • reference to positive and/or negative effects of both types of practice • a limited attempt at evaluation

2 (e)	<p>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</p>
<p>Part – description</p>	
<p>1</p>	<p>when a skill is learned by breaking it down into its subroutines...</p> <ul style="list-style-type: none"> • ...practising or learning or perfecting the sub routines... • ...then putting it back together <p>eg trampoline routine with several different moves / clean and jerk in weightlifting</p>
<p>Progressive Part – description</p>	
<p>2</p>	<p>A – B – AB – C – ABC – D – ABCD</p> <ul style="list-style-type: none"> • when parts of a skills are practised separately • ...then combined to form bigger parts...until whole skill achieved <p>eg triple jump: run up – hop – run up plus hop, etc</p>
<p>Whole – description</p>	
<p>3</p>	<p>Performer attempts the movement in its entirety (having been shown demo or being told what to do) / skill learned in complete form without being broken down into sub-routines</p> <p>eg tennis serve / somersault in gymnastics / soccer penalty kick</p>
<p>Whole part whole – description</p>	
<p>4</p>	<p>Combination of whole and part / learner tries whole skill (to get feel) / teacher identifies weak areas which are practiced / when weak parts are perfected they are integrated back to whole</p> <p>eg swimming front crawl / focus on leg kick / integrate back into full stroke</p>

Part – positive

- 5 Gives early success
- ...so raises confidence or esteem / motivates
- 6 Limits information to process / more manageable (than whole) / less demand on performer (than whole)
- helps understanding
- 7 Good for: **beginners** / cognitive learners / less experienced or younger performers / those having difficulty with a particular part
- 8 Good for performers with **limited motivation** or attention
- 9 Good for **dangerous** skills
- reduces fear
 - it is safe practice to try elements of movements before joining potential dangerous moves together
- eg** gymnastic or trampoline skills
- 10 Good for **complex** skills
- eg** tennis serve / somersault on trampoline / gymnastics routine
- 11 Good for **closed** skills
- eg** swimming
- 12 Good for **discrete** skills / for skills with identifiable sub-routines
- eg** gymnastics or dance routine
- 13 Good for skills that are **low in organisation** or skills that are **easy to break down** for **serial** skills or **slow** tasks (where skill as whole is of long duration)
- eg** triple jump

Part – negative

- 14 Limited awareness of end product / **do not experience**: the whole skill / feel of complete movement / (true) kinesthesia
- transfer back to whole skill can be difficult
 - can lead to lack of fluency or timing or rhythm or continuity
- 15 Can be **boring** or de-motivating
- for highly skilled performers
- 16 Takes more **time** to teach or learn (than whole)
- 17 Some (visual) learners not suited to part-practice as they need to visualise the whole (for better understanding)
- 18 Unsuitable for **highly organised skills** or skills that are difficult to break down into sub routines
- eg** golf swing

Whole – positive

- 19 Whole is (arguably) the best practice method (if possible)
- 20 Gestalt view / holistic view / link with cognitive theory of learning
- learner can appreciate relationship between sub-routines or parts of the skill
 - limits amount of information to process
- 21 (whole) saves times / quicker than P or PP or WPW
- motivating (to complete skill quickly or in one go)
- 22 helps (overall) understanding / gives idea / gives mental pictures / helps interpret environment
- ...so good for open skills
- eg** games skills
- 23 helps gain (true) kinaesthesia or ('real') feel for the skill
- ...so encourages fluency or rhythm or timing
- 24 Good for rapid or ballistic or powerful skills
- eg** shot putt
- 25 Good for older or more experienced or serious performers or autonomous learners
- because they have learned the sub-routines / they have an established motor programme for the skill
- 26 Can be suitable for beginners **if skill is simple**
- eg** skipping / running
- 27 (can be) good for training or to develop fitness
- if skill being practiced is physically demanding
- 28 Good for **simple** skills or skills with **low** levels of **complexity**
- With little information to process
- eg** swimming/cartwheel/sprint start
- eg** rugby tackle
- 29 Good for **continuous** skills
- With no definite beginning or end
- eg** cycling
- 30 Good for **highly organised** skills
- that are not easily broken down / with (inextricably) linked sub routines / where end of one SR becomes start of next
- eg** golf swing

Whole – negative

- 31 technique too difficult to learn (as a whole) / (can be) too difficult for some learners / (can be) too tiring / can create too much failure **DNA – ‘boring’**
- (perhaps) due to information overload
- 32 Low self-esteem or reduced confidence (can) develop
- especially with less experienced performers
- 33 Can be de-motivating
- if progress not being made
- 34 Difficult to refine or correct specific parts
- Errors are repeated or reinforced
- eg** mistakes in dribble of lay up shot in basketball carried forward into full lay up shot
- 35 Can be dangerous / not good for (potentially) dangerous skills
- if not skilled or not physically able or mature or if skill is very difficult
- eg** gymnastics vault
- 36 Not suited to learning **complex** skills
- eg** batting or bowling in cricket / high jump

Section B Total [30]

Section C: Socio-cultural studies relating to participation in physical activity		Additional Guidance
3 (a)	Define Physical Education and outline the benefits of Physical Education to young people in schools today. (6 marks) 1 mark for definition and 5 marks max for benefits.	
Definition (sub max 1) to gain mark candidates must reference 1) and 2) or 3)		Do not accept
1	1) teaching / learning and either 2) skills / sports or 3) benefits / values	physical / education examples of: skills / sports / benefits / values
Benefits (sub max 5) – credit the following when given as part of definition (above)		
2 (health)	improved health / (a more) healthy balanced lifestyle / learn about healthy balanced lifestyles / reduce sedentary lifestyles / contributes to '5 a week' / well-being / relieve stress / break from academic work / reduced obesity or CHD or other suitable health example	
3 (physical)	improved fitness / (learn) sport skills / try a variety of activities or sports	'skills' on own
4 (theory / KU)	knowledge of or learning about the body or theory or nutrition or rules or tactics or benefits of exercise / gain qualifications / gain GCSE or A Level PE or other eg	
5 (prep)	preparation for leisure or sport / increased participation / lifelong involvement or lifelong participation / join club / hobby / chance to play competitive sport / preparation for or helping to choose career or work eg become PE teacher or professional performer or coach or other suitable example	reference to creating elite performers/ skills for work or life be involved with extra-curricular clubs or activities
6 (self)	leadership / (self) confidence or esteem or realisation or development / knowledge of strengths and weaknesses or self-actualisation / learn about themselves or their capabilities / discipline / character building / loyalty / courage / learn to win-lose / accept defeat / sense of achievement / responsibility / independence / enjoyment / feel good factor	to play competitive sport / skills for school or life or work / sense of adventure
7 (social)	teamwork / sharing / co-operation / working with others / communication / trustworthiness / socialisation or integration in society / interaction	Socialise /make friends / improve social life
8 (commit)	commitment / determination / motivation / meeting or overcoming challenges / mental strength / emotional control	
9 (cognitive)	cognitive or thinking skills / decision making / problem solving	
10 (fair play)	sportsmanship / fair play / positive behaviour / morals / not to cheat / respect (for others)	
11 (quality / aesthetic)	qualitative benefits / (improved) quality of life / chance to be creative / achieving excellence / aesthetic appreciation or awareness	ref. natural environment
6 marks in total for question 3 (a)		

(b)		The Modern Olympic Games are over 100 years old. Outline the background of the Modern Olympic Games. (4 marks)	
		Accept	Do not accept
1 (De Coubertin)	(Baron Pierre) de Coubertin (had idea)	Incorrect spellings	First name without second name eg Baron Pierre
2 (Ancient Games)	Ancient Olympic Games (influential)		
3 (Cotswold / Dover)	Cotswold (Olympic)Games (influential) / (Robert) Dover Games (influential)		
4 (Much Wenlock/ Dr Brookes)	(Much) Wenlock (Olympian) Games (inspired De Coubertin) / Dr William Penny Brookes (invited De Coubertin to Much Wenlock / De Coubertin visited Much Wenlock (and was inspired by what he saw) /		
5 (public schools)	(games ethic of) Public Schools impressed De Coubertin / (Influence of) Public Schools (eg Rugby School) / De Coubertin visited Rugby School or the Public Schools (and was inspired or impressed by what he saw) /		
6 (vision)	De Coubertin wanted to promote: character development / friendship / unity / international understanding / peace / fair play	other examples of ideals	
7 (amateurism)	early (Modern) Games were (strictly) amateur		
8 (Athens)	First Modern Olympic Games held in Athens or in Greece or in <u>1896</u>		
4 marks in total for question 3 (b)			

(c)		Identify the economic system of the USA and explain how it influences sport in the USA. (5 marks)	
Economic system – (sub max 1)		Accept	Do not accept
1 (economic system)	Capitalist or capitalism / free or private enterprise or market / entrepreneurship / business for profit		Big business / Commercialism / Money orientated / Win at all costs
Explanation of how economic system influences sport in USA (sub max 4)			
Capitalism is about winning or making money and so...:			
2 (win ethic)	...win (at all costs) ethic or Lombardian ethic dominates		Sport very competitive
3 (nature of games)	... are high scoring or action packed or exciting / unpopular for games to end in draw		
4 (media / entertainment)	...sport is a media product / media controls (aspects of) sport / sport part of entertainment industry	Reference to media controlling timings	
5 (deviance)	...evidence or examples of deviance in sport / evidence of drug taking or match fixing or violence or other suitable example/s of deviance		
6 (American Dream)	...sport allows individuals to achieve the American Dream or to go from 'rags to riches' / Individuals can become wealthy or successful or achieve high status through sport		If you work hard you get rewarded / Reference to university scholarship system
7 (profit)	.. sport is about making profit / sport is 'big business' / sport has (high levels of) commercialism or sponsorship or advertising / sport (stars) are a commodity / athletes as billboards / reference to cost of advertising during SuperBowl		
8 (team ownership /franchises)	...teams are privately owned or run as businesses / teams or players are bought and sold / teams as franchises or investments		
5 marks in total for question 3 (c)			

(d) Describe current measures to increase sporting excellence in the UK by relevant bodies or organisations. (sub max 3 from any one organisation eg 3 from UK Sport plus 2 from BOA = 5 marks max)		(5 marks)
Organisations (1-4) must be named and linked to correct theory point no mark for organisation on own		Do not accept
UK sport:		
1	distributes national lottery funding / (invests in) World Class (Performance or Pathway) Programme / funds Podium, Development and Talent programme / invests Government or Public funding (into elite sport)	
2	promotes ethical behaviour / runs anti-doping programme / 100% ME	
3	bids for or attracts major (sporting) events (eg Olympics 2012)	
4	does research into training or coaching science	Strategic support on own
5	works with or supports NGBs	
6	runs Talented Athlete Scholarship System (TASS) / supports or funds elite performers in higher education.	
National Institutes / EIS / SIS / WIS / SINI / centres of excellence:		
7	(support via hub or satellite sites) eg Bisham Abbey / Lillleshall / Loughborough Uni / Roehampton (tennis) or other eg	Practical support on own /
8	scientific support /eg biomechanics /nutrition /psychology /physiotherapy /strength & conditioning or other eg	coaching or facilities on own /
9	high quality coaching or facilities / provides training camps	post career advice
10	Performance lifestyle advice (PLA) / career advice.	
National Governing Bodies / NGBs:		
11	talent ID	
12	work of performance director/s	
13	building national facility or centre/s	
14	whole sport plans or one stop plans	
15	does research into training or coaching science	
British Olympic Association / BOA:		
16	fund raises	
17	works on Olympic Bid/s	
18	supports performance lifestyle advice (PLA) (of Institutes)	
Department of Culture Media & Sport (DCMS) / London Organising Committee of Olympic Games (LOCOG)		
19	(both) responsible for delivery of London 2012 / oversee London 2012	
20	DCMS oversees public sector funding / puts money into sport	
21	Sport England: funds elite programmes in (some) non Olympic sports (eg netball)	Ref: participation
22	UK Sport or National Institutes or NGBs or BOA are becoming more efficient / improvement of (UK) sporting system	
23	academy programmes / G+T programmes / links between Sports Colleges and (national) institutes	Sports colleges on own
5 marks in total for question 3 (b)		

3 (e)	Discuss the relationship between sport, sponsorship and the media. (10 marks)	
Level 3 8–10 marks	A comprehensive answer: <ul style="list-style-type: none"> • 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. 	At L3 responses <u>are likely</u> to include: <ul style="list-style-type: none"> • detailed understanding of the relationship between sport, sponsorship and the media • effective discussion of the relationship demonstrated (including both advantages and disadvantages), supported by appropriate examples
Level 2 5–7 marks	A competent answer: <ul style="list-style-type: none"> • 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. 	At L2 responses <u>are likely</u> to include: <ul style="list-style-type: none"> • satisfactory understanding of the relationship between sport, sponsorship and the media • discussion of the relationship attempted with some success supported by some examples
Level 1 0–4 marks	A limited answer: <ul style="list-style-type: none"> • 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. 	At L1 responses <u>are likely</u> to include: <ul style="list-style-type: none"> • basic understanding of the relationship between sport, sponsorship and the media • a focus on the individual aspects ie sport and/or sponsorship and/or the media • a limited attempt at discussion

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

(e) Discuss the relationship between sport, sponsorship and the media. (10 marks)

Golden triangle

- 1 sport, sponsorship & media form the '**golden triangle**'
- very strong relationship / relationship has become stronger in recent years / each element affects or relies on others / sport has changed due to the relationship
 - UK 'adopted' golden triangle from USA / 'Americanisation' of British sport
 - triangle reflects capitalism or free enterprise or is about making profit or money
- 2 more media coverage = more sponsorship / sponsorship depends on media coverage / sponsorship has increased due to media coverage
eg England Netball for whom TV coverage has increased sponsorship / expense of advertising at Super Bowl
- 3 (relationship) allows major events to be staged
eg London 2012
- 4 (relationship allows) improved facilities for players or spectators (due to funding from sponsorship or media)
eg premier league football v women's hockey

Golden triangle – disadvantages

- 5 deviance / loss of integrity for sport
- due to increased pressure to win / win at all costs / Lombardianism
- eg** match fixing allegations in cricket (England v Pakistan at Lords 2010)
- 6 certain sports dominate / low profile or lower level or minority group sports get little or no media attention / get little sponsorship (so less able to market themselves)
eg volleyball or other suitable example
- 7 exploitation / fame 'too much' for some
- performers committed to demands of sponsor/s / performers may have to compete more than is desirable
- eg** young successful footballers unable to cope with media exposure and/or wealth

Media

- 8 the media includes various forms of communication
eg TV / newspapers / radio / internet / other suitable example/s
- 9 **roles** of media: inform / educate / entertain / advertise / media highlights sporting issues
eg accept suitable / relevant example/s of roles
- 10 TV affects sport / TV is the most powerful aspect of media / sport on TV attracts high ratings or viewing figures
- buying and selling of TV or broadcasting rights
- eg** accept suitable / relevant example/s

- 11 increased participation
- 12 money to sport from media
eg money to LTA from BBC (Wimbledon)
- 13 role models created / copying of (good) behaviour of (positive) role models
eg copying sportsmanship
- 14 media promotes or increases awareness of (minority) sport
eg accept suitable example/s
- 15 media has made sport more: entertaining / popular / exciting / better to watch
eg half time at Super Bowl / mascots / Hawk Eye other suitable example/s of entertainment etc
- 16 sport stars created /celebrity status possible
eg accept suitable example/s
- 17 reference to (impact or influence of) Sky or cable or digital TV
eg 24hr coverage / huge variety of sports
- 18 media influences or controls or changes (some) aspects of sport – (which can be good or bad) / myths or stereotypes broken or reinforced
eg rules or scheduling or format
eg Twenty20

Media and sport – disadvantages

- 19 (argument that there is) too much sport on TV / sport over-exposed
- decreased participation / people watch rather than participate
- 20 copying or being influenced by bad behaviour of (negative) role models
eg bad language / lifestyle choices
- 21 irresponsible press coverage
- fuelling (by press) of negativity towards opponents
- eg** England v Germany football
- 22 media intrusion or media demands
- bright lights etc may put performers off
- eg** requirement to give press interviews immediately after a match
- 23 Pay Per View means not everyone can see all events
eg accept suitable example/s

Sponsorship

- 24 money to sport from sponsorship / sponsorship is the funding of individuals or teams or events or kit
- to increase brand awareness or company exposure and/or to make profit
 - sponsoring sport gives healthy or 'cool' image to sport
- eg** accept suitable / relevant example/s

- endorsements of products by well known performers
- eg** accept suitable / relevant example/s
- 25 powerful or dominant sports or the sports of powerful or dominant groups may achieve have some control over sponsors
eg Premiership football
- 26 sponsorship allows (full-time) training / it allows participation as a job or professionalism / sponsorship gives performer's or clubs financial security
- lack of sponsorship / money = limited progress
- 27 sport sponsorship (generally or has been) a relatively inexpensive form of advertising
- reference to impact of recession

Sponsorship and sport – disadvantages

- 28 bad image for sport due to being linked to tobacco or alcohol or fast food products
eg accept any suitable / relevant example
- 29 pressure of sponsors demands
- appearances

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