

Cambridge Assessment International Education

Cambridge International Advanced Subsidiary and Advanced Level

PHYSICAL EDUCATION 9396/12 Paper 1 October/November 2017

MARK SCHEME
Maximum Mark: 90

Published

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Question	Answer	Marks
Section A		
1(a)	4 marks for 4 of: (sub-max. 1 mark) 1 shoulder – ball and socket <u>and</u> knee – hinge joint; (sub-max. 3 marks) 2 shoulder – greater / knee – lesser range of movement; 3 shoulder – moves in three planes (tri-axial) AND knee – moves in one plane (uni-axial); 4 shoulder – flexion / extension AND abduction / adduction AND rotation / circumduction AND knee – flexion / extension; 5 shoulder – less / knee – more stable; 6 shoulder – stabilised by muscles AND knee – stabilised by ligaments;	4
1(b)	4 marks for 4 of: (sub-max. 2 marks) structural: 1 size — small / smaller in diameter / fewer fibres per motor neurone; 2 more myoglobin / red; 3 more mitochondria; 4 more fat / triglyceride stores; 5 type of myosin ATPase (slow); 6 high capillary density / high oxidative capacity; (sub-max. 2 marks) functional: 7 high aerobic / low anaerobic capacity; 8 slow contractile speed / contracts slowly; 9 high fatigue resistance / fatigue slowly; 10 low (motor unit) strength / less forceful contraction;	4
1(c)	5 marks for: 1 concentric / isotonic; 2 (horizontal) flexion / adduction; 3 pectoralis major / deltoid; 4 (internal) rotation; 5 gluteus medius / gluteus minimus / semimembranosus / semitendinosus / gracilis;	5
1(d)(i)	2 marks for: 1 increase in heart rate <u>before</u> exercise; 2 release of (nor)adrenaline / epinephrine;	2

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Question	Answer	Marks
1(d)(ii)	 4 marks for any 4 of: 1 chemoreceptors detect increased blood acidity / CO₂ / [H⁺] / decrease in pH; 2 proprioceptors / mechanoreceptors detect movement / muscular contractions; 3 baroreceptors detect a change in in blood pressure; 4 thermoreceptors detect increase in temperature; 5 information to cardiac control centre / medulla (oblongata); 6 increased nerve impulses to SA node; 7 via sympathetic nerve / cardiac accelerator nerve; 	4
1(e)	3 marks for: 1 6 – increases; 2 7 – decreases; 3 8 – decreases;	3
1(f)	 4 marks for any 4 of: (leaving heart / left ventricle) blood pressure AND velocity high; because of small cross-sectional area / large contractile force from cardiac muscle / heart beat; (through arteries / arterioles / at capillaries) blood pressure AND velocity decrease; because of large / increased cross-sectional area of vessels further away from heart / left ventricle; because of friction between blood and blood vessel walls; (returning to the heart) blood pressure continues to decrease; but velocity increases due to venous return mechanism / reduced cross-sectional area in veins / venules; 	4
1(g)	 4 marks for any 4 of: low pO₂ / less oxygen at altitude; reduced diffusion gradient between alveoli / lungs and air; need to increase rate / depth of breathing to compensate; reduced diffusion gradient between alveoli and blood / capillaries; not as much oxygen diffuses into blood / capillaries; haemoglobin not as fully saturated / reduced partial pressure of oxygen in blood; less oxygen delivered to muscles; reduced diffusion gradient between capillaries and muscles; reduced aerobic performance / quicker onset of anaerobic respiration / increased oxygen debt / increased excess post exercise oxygen consumption (EPOC); 	4

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Question	Answer	Marks
Section B		
2(a)	4 marks for any 4 of:	,
	 exposure to activities / more skills practised in childhood then more likely for learning to take place; availability of (time to) practice / more time to practise; role models / significant others may be copied / social learning; enough money / finances to learn motor skills in certain activities; access to facilities / equipment; cultural / social reasons; 	
2(b)(i)	1 mark for:	
	attention, retention, (motor) reproduction, motivation;	
2(b)(ii)	3 marks for any 3 of:	;
	 ensure observer is watching / concentrating; highlight cues / key areas of skill; attractive to learner / role model / significant other / demonstrator same age / gender as observer; accurate / perfect performance; demonstrate slowly / repeatedly / break down into parts; include verbal guidance; encourage creation of mental image; immediate practice; 	
2(c)	4 marks for any 4 of:	
	No practical example(s) – max. 3 marks.	
	 programmes formed through repetition / practise / overlearning, e.g. repeat the (named) skill over and over; programmes formed through association with other movements / chunking / chaining, e.g. associate tennis serve with overarm throwing / volleyball serve; 	
	 programmes formed though meaningfulness / need, e.g. the tennis serve is needed to play a game; programmes formed through novelty / interest / uniqueness, e.g. learn a new / more advanced tennis serve / overarm serve / topspin serve; 	
	 serve; programmes formed through fun / enjoyment / emotional intensity, e.g. taught enthusiastically / made competitive; (positive) reinforcement / rewards / encouragement / feedback helps to build programmes, e.g. praised for being correct; provide demonstration / mental image / break skill down; programmes are stored / encoded in long-term memory; 	

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Question	Answer	Marks
2(d)(i)	2 marks for any 2 of: 1 select relevant information / focus on important cues; 2 filter out irrelevant information; 3 receives information from short-term sensory store / display; 4 sends information to short-term memory; 5 speeds up decision-making process; 6 avoids information overload;	2
2(d)(ii)	3 marks for any 3 of: 1 relevant / OWTTE practice / learn to ignore irrelevant stimuli / practice with distractions / reduce number of stimuli; 2 mental rehearsal / imagery; 3 increase intensity of stimulus; 4 make stimuli unique / memorable / meaningful / relate to past experiences; 5 highlight specific cues; 6 optimal arousal / motivation levels / motivate; 7 warning signals;	3
2(e)	4 marks for 4 of: (sub-max. 1 mark) 1 cognitive (phase of learning); (sub-max. 3 marks) 2 accurate demonstration; 3 performer can see / make sure performer is paying attention; 4 highlight key points; 5 do not overload with information / break up into steps / use appropriate language / verbal guidance; 6 encourage positive transfer / prevent negative transfer of learning; 7 create a mental picture / imagery / visualisation; 8 provide (extrinsic) feedback / reinforcement / praise / eq.; 9 use of manual / mechanical guidance / adapted equipment; 10 allow time for questions / rest / practice;	4
2(f)(i)	 2 marks for: (positive transfer – when one skill helps the learning and performance of another skill), e.g. netball shooting and basketball shooting; (enhance its effects) ensure activities have transferrable elements / relevant to other activities OR make sure skills are thoroughly learned before attempting other skills OR making the performer aware of the effects of transfer; 	2

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Question	Answer	Marks
2(f)(ii)	 marks for any 3 of: negative transfer – where learning of a skill hinders the learning of another skill; such as practising a forehand in badminton and then practising a forehand in tennis; limiting negative effects by making the performer aware of the different elements in such skills; only practise transferable skills; 	3
2(g)(i)	1 mark for: intrinsic – (drive) from within / inside AND extrinsic from outside / rewards / etc.;	1
2(g)(ii)	 3 marks for any 3 of: 1 intrinsic motivation gives performer a sense of control over performance; 2 (excessive) extrinsic motivation may reduce / lead to loss of (intrinsic) motivation; 3 failure to achieve an extrinsic reward may lead to loss of (intrinsic) motivation / if no reward may give up; 4 performers demand increasing extrinsic rewards / some rewards become unimportant / lose their value; 5 extrinsic motivation controls / manipulates behaviour / only play for rewards / overly reliant on extrinsic motivation; 6 excessive need for extrinsic causes too much pressure / win-at-all costs attitude / leads to cheating; 	3

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Question	Answer	Marks
Section C		
3(a)(i)	3 marks for any 3 of:	3
	sport play	
	1 highly organised / structured numbers / roles of participants / playing area less organisation by comparison;	
	2 competitive / concerned with winning / extrinsic for its own sake / involves no ulterior motive / intrinsic;	
	3 complex / many rules simpler / fewer rules;	
	4 pre-determined rules / use of officials rules agreed / decided prior to participation;	
	5 rules are accepted / adhered to / rules can be changed as play fixed for the duration of the activity progresses / spontaneous;	
3(a)(ii)	 4 marks for 4 of: (sub-max. 3 marks) individuals: 1 helps maintain / develop an individual's health / fitness; 2 helps maintain / enjoyment / feeling of well-being / (stress) relief / relaxation / develop mental health; 3 encourages individual to develop inter-personal / social skills / friendships / working with others; 4 provides challenge / sense of achievement / develops self-esteem; (sub-max. 3 marks) society: 5 reduces cost of health care / improves the 'health of the nation' / reduces days of work lost; 6 encourages social interaction / brings people together / develops community spirit; 7 reduces anti-social behaviour / social control / channels energy away from misbehaviour; 	
3(b)(i)	 5 marks for any 5 of: 1 encourage participation / better health / social control; 2 increased chance of success; 3 increase in national prestige / feel-good factor / morale; 4 advertisement for the country / recognition / 'shop-window effect'; 5 developed infrastructure, e.g. better facilities / coaching / employment; 6 demand / expectation from population for national success; 7 confirmation of political superiority; 8 to enable individuals to succeed / human potential can be discovered; 	5

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Question	Answer	Marks
3(b)(ii)	 5 marks for any 5 of: Must relate to a country – max. 4 marks if no country identified. 1 description of government policies / initiatives / schemes / relating to talent ID and talent development; 2 description of pathways / progression in place to achieve excellence / organisation of sport; 3 provision for funding / grants / sponsorship / scholarships; 4 provision of facilities – local / regional / national / equipment / technology; 5 provision / education of coaches; 6 provision of centres of excellence / sports schools / universities / academies; 7 provision of support – medical / sport science; 8 description of policies showing attitudes towards excellence; 9 wider participation base / school programmes / give more reaching top of pyramid; 	5
3(c)(i)	4 marks for any 4 of:	4
	voluntary public	
	1 run by members / committee / run by (local) authority departments / (local) council / (local) government;	
	2 runs on profit-loss / profit not an overriding concern trading on set prices / charges etc. / according to pre-set budget;	
	3 financed by members / fees / may involve subsidies / council tax or eq.;	
	4 possibly on trust / charity basis move to private management / Compulsory Competitive Tendering / 'Best Value' / Public Private initiatives;	
	5 aims to increase participation / performance in their sport / look for talent / provide for grass roots of sport public service / community provision / provision at every level;	
	6 facilities / equipment dependent upon income lack of funds means not usually well equipped;	

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Question	Answer	Marks
3(c)(ii)	4 marks for 4 of: (sub-max. 3 marks) advantages: 1 more choice of provision; 2 better / up-to-date / range of facilities / equipment; 3 (more) personal trainers / more expertise; 4 more opportunities to keep fit; 5 (possibility of) discounted / family membership; (sub-max. 3 marks) disadvantages: 6 increased cost / expensive; 7 fewer exist / travel required; 8 public services suffer / may be underused;	4
3(d)	 5 for any 5 of: If no examples from sporting competition – max. 4 marks. changes in start times; arranging time-outs / breaks to allow for advertising / sponsors; rule changes to make the game more entertaining; deviance clearly identified through technology to officials / TMO / third umpire / citing; emphasis on attacking play / intense action; defensive play and stoppages are discouraged; encourage participation; raise profile of (minor) sports; sports stars have become media figures / focus on female image vs. ability; increase in the spectacular / trivial / sensationalised; increased media brings in increased money / sponsorship; intrusion into private life / demands for interviews; there is more cheating / gamesmanship; 	5

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