Mark Scheme Summer 2009

GCSE

GCSE Physical Education (1827 / 3827)

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1827: GCSE Physical Education Paper 1

SECTION ONE

Question Number	Answer	Mark
1	a) B b) C c) D d) C e) B f) D g) B h) A i) C j) C	(1) (1) (1) (1) (1) (1) (1) (1) (1)
	(Total 10	marks)

TOTAL FOR SECTION ONE: 10 MARKS

Question	Answer	Mark
Number		
2(a)	Aesthetic Appreciation - seeing the beauty of a skilful performance/style/looks good/pleasing to the eye/equiv	
		(1)

Question Number	Answer	Mark
2(b)(i)	SOCIAL - 1. co-operation/work with others/teamwork 2. make new friends/play or meet with current friends/socialise	
(ii)	PHYSICAL - 3. improve/maintain performance 4. increase/maintain fitness/improving any stated component of health-related exercise (e.g. strength etc) or skill-related fitness 5. increase/maintain health/improving any aspect of physical health (e.g. lower resting blood pressure; increased bone density reduced cholesterol) 6. losing weight - in future this will need qualification in relation to being overweight 7. improve body shape	
(iii)	Looks good unless linked to feels good - credit under mental benefit under point 10 (if both bits are mentioned) MENTAL - 8. competition/challenge/working at a higher level 9. relieve stress 10. increase confidence/self esteem/feel better about themselves	
	11. fun / happy / enjoyment	(6)
	(Tot	tal 7 marks)

Question Number	Answer	Mark
3(a)(i)	D	(1)

Question Number	Answer	Mark
3(a)(ii)	If definition given first continue to mark the rest of the response. 1. The different performers have different fitness requirements/activities/fit enough for their sport/they all have different 'strengths'/equiv 2. No way to tell or measure from a picture whether they are able to meet these demands	
	If incorrect answer in 3 (a)(i) no credit for 3 (a)(ii). Points can be made in any order. No credit for stating definition of fitness.	(2)

Question Number	Answer			Mark
3(b)(i)&(ii)	(i) Aspect of health- related exercise important to all performers	(Muscular) Strength/Body Composition		(1)
	(ii) Performer 1	Example of use in performance Uses strength to wrestle/manoeuvre opponent BC - appropriate for activity (Ectomorphs will lose more easily)		
	Performer 2	To lift weights BC - Mesomorph/muscular to lift weights		
	Performer 3	To hold body weight BC - Mesomorph/muscular to hold position on rings		(3)
	If 3 (b) (i) is incorrect, do r	oot mark 3 (b) (ii)		
			(Tot	tal 7 marks)

Question Number	Answer	Mark
4(a)(i)	Agility	(1)

Question Number	Answer	Mark
4(a)(ii)	Reaction time	(1)

Question Number	Answer	Mark
4(a)(iii)	Balance	(1)

Question	Answer		Mark
Number			
4(b)	(i) Component of al	ill related fitness.	
(i)(ii)(iii)	(i) Component of sk Power	Kitt-retated ritness:	
	Speed Co-ordination		(2)
	Any two in any orde	ar .	(2)
	(ii) Activity where	N.B. If only 1 correct component in	
	BOTH	(i), no credit for this part of the	
	components are	question.	
	important	N.B. If no activity then no marks for	
	important	(ii) and (iii)	
		() and ()	
		Credit any appropriate activity	
		given candidate response, e.g.	
		sprinting	(1)
	(iii) Why	N.B. If <u>no</u> correct answer in part (i),	
	component 1 is	no credit for this part of the	
	important	question.	
		Credit any appropriate application.	
		E.g. Power - for an explosive start	
		from the blocks, (to give a faster	
		time)	
		N.B. If <u>no</u> correct answer in part (i),	
	Why component 2	no credit for this part of the question.	
	is important	question.	
	13 important	E.g. Speed - to run faster than	
		opponents	
		E.g. Co-ordination - so that arms	
		and leg movement can work	
		together to give optimum speed	(2)
			ı
			(Total 8 marks)

Question	Answer	Mark
Number		
5(a)	Harder/more/equiv Overload	
		(2)

Question Number	Answer	Mark
5(b)	Moderation Progression (Any order)	(2)

Question Number	Answer	Mark
5(c)	Reversibility	(1)
	(Tot	tal 5 marks)

Question Number	Ans	wer		Mark
6	fol	ow any of the lowing, in any der to maximum 3 marks:	(ii) Explanation must match given fitness station (must state aspect of fitness or very clear description)	
	1	Press ups/pull ups	Increase strength/equiv (for support positions) Increase muscular endurance (repeated muscle action)	
	2	Squat thrusts	Increase power in legs/equiv (for tumbling aspect of routine)/increase strength/muscular endurance	
	3	Shuttle runs	Increase speed/equiv (for tumbling) Increase CV fitness/stamina (floor routine)	
	4	Sit ups/Press ups/	Increase muscular endurance/strength	
	5	Trunk twists	Increase flexibility/increased muscular endurance	
	6	Skipping	Increase cardiovascular fitness/stamina(maintain performance)	
	3 m	arks for saying inc	ect of fitness once i.e. candidate can not gain reased muscular endurance for each alked to sport and different muscle groups.	(2 x 3)
			(То	(6) tal 6 marks)

Question	Answer	Mark
Number		
7(a)(i)-(iv)	Accept in any order:	
	Carbohydrates	(1)
	Vitamins	(1)
	Minerals	(1)
	Fibre/roughage	(1)
		\

Question Number	Answer		Mark
7(b)			
7 (D)			445
	(i) Water	Reduces chance of dehydration/keeps body	(1)
		hydrated / helps regulate body temperature	
	(ii) Fats	Provides energy for physical work	(1)

Question Number	Answer		Mark		
7(c)	7(c)				
	Role	Growth & repair (of cells)/muscle hypertrophy / increase muscle size			
	Advantage	If the role is incorrect then the advantage should not be credited.			
		Advantage must link to stated role, insufficient to say improved performance as answer on own.			
		Reference to can continue to perform/get back to training/doesn't lose too much time due to injury/heals quickly / equiv			
		Increased strength so improved performance			
			(2)		

Question	Answer	Mark
Number		
7(d)	(Would have to carry) excess weight/too much weight/overfat (which makes performance harder) To meet weight categories / to maintain optimum weight	
		(1)

Question Number	Answer	Mark
7(e) (i) - (iii)	DO NOT accept fat/how much they eat/what they eat/reference to water DO NOT accept ref to sport or event DO NOT accept exercise on its own DO NOT accept reference to weight of clothing/equipment Accept any of the following in any order, max 3. NB Only one answer credited per row.	
	 Height/length of bones Bone structure/bone density Muscle mass/body composition/body type/somatotype/muscle girth/gender Amount of exercise/ injury /illlness/ balancing the energy equation/periodisation /equiv Drug use / hereditary / metabolic rate / age 	(3) al 12 marks)

Question Number	Answer			Mark
8(a) - (b)				
, , , , ,	Type of competition	(a) Balanced? Yes/No	(b) Explanation	
	Mixed doubles badminton match	YES	1 man, 1 woman on each team	
	Gymnastic competition	NO	Should be female vs. female or male vs. male / not the same gender	
	Boxing match	YES	Weight category the same	
	If (a) is incorre	ect then no cre	dit for (b).	
				(6)
				(Total 6 marks)

Question Number	Answer			Mark
9(a) - (b)	Sports Injury	(a) Description of injury	(b) Example from sport and why injury occurred	
	Sprain	Torn ligament; Wrenched/twisted joint/equiv	If (a) incorrect, no credit for (b). If (a) is left blank, no credit for (b).	
			(Twisted ankle) due to uneven playing surface/ landing awkwardly / equiv	
	Strain	Torn or pulled muscle	If (a) incorrect, no credit for (b). If (a) is left blank, no credit for (b).	
			(Pulled hamstring) due to not warming up/overstretching / equiv.	
				(4)

Question	Answer	Mark
Number		
9 (c)	Rest; Ice; Compression; Elevation	
		(1)
	(Tot	tal 5 marks)

Question	Answer	Mark
Number		
10	Accept in any order:	
	Heart	
	Blood	
	Blood vessels	
		(3)
	(То	tal 3 marks)

Question	Answer	Mark
Number		
11(a)(i)	Oxygen	
		(1)

Question Number	Answer	Mark
11(a)(ii)	higher/greater/more/increased	(1)

 Aid clotting to plug the hole / barrier on the skin/prevent further bleeding /eqiv So the performer can continue to play/avoid blood bin / equiv 	
(Tot	(2) tal 4 marks)
	further bleeding /eqiv 2. So the performer can continue to play/avoid blood bin / equiv

Question Number	Answer	Mark
12(a)	Increase/goes up/rises/equiv	(1)

Question Number	Answer	Mark
12(b)	Any order: Oxygen Carbon Dioxide	(2)

Question Number	Answer	Mark
12(c)	The amount of air breathed in (to the lungs) <u>in one breath</u> The amount of air breathed out (of the lungs) <u>in one breath</u> The amount of air breathed in and out (of the lungs) <u>in one breath</u>	
		(1)

Question	Answer	Mark	
Number			
12(d)	Vital capacity		
		(1)	
	(Tot	(Total 5 marks)	

Question	Answer	Mark
Number		
13(a)	Cervical	
	Thoracic	
	Lumbar	
	Sacral	
	Answer must be in correct order for 4 marks. Give credit until incorrect order stated.	
		(4)

Question Number	Answer		Mark
13(b)	Only 4 region used once.	s and functions required. Each function can only be	
	Region	Function	
	Atlas	E/Supports the weight of the head/ F/allows nodding action	
	Axis	C/Allows shaking motion of head	
	Cervical	A/Muscle attachment	
	Thoracic	D/Protection of vital organs	
		A/muscle attachment	
	Lumbar	B/ Transmit body weight to pelvic girdle	
		A/muscle attachment	
	Sacral	B/Transmit body weight to pelvic girdle	
		column is not important for this part of question. K if function matches correct region across the row. To	
		i i iidiidi	(4)
			1 (' ')
		(To	tal 8 marks)

Question Number	Answer	Mark
14(a)	Any order: Humerus Scapula	(2)

Question	Answer	Mark	
Number			
14(b)	A = Deltoid		
	B = Pectorals		
		(2)	
	(Tot	(Total 4 marks)	

TOTAL FOR SECTION TWO: 80 MARKS

Question Number	Answer	Mark
15(a)(i)	Needs two parts to answer to get mark - looking for reference to the physical, i.e. difficult for them to do; not easy and something 'mental' - sense of satisfaction/achievement. Possible responses: • Sense of achievement from doing something physical / practical activity outside of comfort zone • Setting themselves a target to achieve physically and striving to achieve it; • Pushing themselves to do better • Activity with an element of perceived risk NOT working harder	
		(1)

Question Number	Answer	Mark
15(a)(ii)	Any activity that involves gross movement or element of risk	(1)

Question	Answer	Mark
Number		
15(a)(iii)	Answer must match activity and be an example of application of	
	answer to part (i). E.g. Trampolining - not very good and want to	
	get better, but scared to bounce too high	
	E.g. run a marathon - can only run about a mile currently, would	
	need to work hard and stick to training	
		(1)

Question Number	Answer			Mark
15(b)(i)	NB Must be diffe	erent type of risk for	each activity	
	Activity	Potential Risk	Risk reduced by	
	Gymnastics	Allow descriptions of risk or potential accidents e.g. falling off the beam Soft tissue injuries Soft tissue injuries	If potential risk incorrect, no credit for risk reduction. Risk reduction measure must match stated risk 1. Warm up	
		Fracture/break/concussion Cuts/blisters Overuse	2. Check equipment; check position of equipment; use padding for landings; use of support for complex moves 3. Chalk/tape/hand guards 4. Recovery time/incremental progression with technique/use of correct technique	
	Rock climbing	Allow descriptions of risk or potential accidents e.g. falling off rock, rope breaking. Concussion/break/death/head injury/cuts/abrasions/equiv	Working with 'buddy/use of ropes/helmets/ belays/specialist equipment/equiv	
				(4

Question Number	Answer	Mark
15(b)(ii)	Possible answers: Examples of racket sports; Examples of track events; Examples of 'Jumps'; Examples of team games other than rugby (due to potential neck injury) Any two correct, any order NOT athletic throwing events; equestrian events; rugby; boxing Must be different type of risk for each activity. Risk must be associated with stated injury (If activity is incorrect, risk is incorrect). Accept any of the following examples or equivalent: 1. Allow descriptions of risk or potential accidents (e.g. broken teeth) if appropriate to the sport 2. Examples of soft tissue injury / sprain / strain 3. Pulled muscle / deep bruising 4. Tennis elbow 5. Golfers elbow 6. Cuts / abrasions 7. Joint injury / dislocation 8. Cartilage tear 9. Fracture / break 10. Dehydration	(4)

Question Number	Answer			Mark
15(c)(i)-(ii)	Body Type	(i) Description of body type	(ii) How body type could aid performance in chosen activities	
	Mesomorph (gymnast)	Muscular/wide shoulders <u>and</u> narrow hips / equiv	Greater strength for balances/support positions/pull themselves up on the rings; Greater power for faster movement in tumbling routines/equiv	
	Ectomorph (rock climber)	Slight build/tall and thin/slim /equiv	Tall - good reach for choice of handholds/ foothold/equiv Thin - less weight to support (accept makes it easier to climb)/pull up rock face/equiv	(4)
				(4)

Question Number	Answer	Mark
15(d)(i)	Strength/Power/Speed	(1)

Question	Answer	Mark
Number		
15(d)(ii)	Any two from:	
	1. Liver/kidney damage/equiv	
	2. Increased aggression;	
	3. (Premature) heart disease;	
	4. Acne/equiv	
	5. Low sperm count/infertility / secondary sexual characteristics in	
	women	
	6. Depression	
		(2)

Question Number	Answer	Mark
15(d)(iii)	NB Do NOT credit more than one response/line of the mark scheme	
	Any two from: 1. Cheating/against rules/illegal 2. Get banned/disqualified 3. Should demonstrate good sporting behaviour/unfair advantage/bad image/bad role model/equiv	
		(2)
	(Tota	l 20 marks)

Question	Answer	Mark
Number		
16(a)	The ability to meet the demands of the environment/equiv	
		(1)

Question Number	Answer	Mark
16(b)(i)	They have different needs/demands of their activities are different/ different fitness requirements/ training for different sports / equiv	
		(1)

Question Number	Answer	Mark
16(b)(ii)	Specificity/Individual needs/Individual differences	(1)

Question Number	Answer	Mark
16(c)(i)	Sprinting / hurdles / relay / equiv (1500m or less?)	(1)

Question Number	Answer	Mark
16(c)(ii)	1. Work hard/anaerobically/maximally/ intensely / flat out / sprint DO NOT accept burst of quick running/burst of energy	
	 Rest (to allow recovery)/active rest/equiv Work (hard) again / repeat set /equiv Only award point 3 if point 1 achieved. 	(2)
		(3)

Question	Answer	Mark
Number		
16(c)(iii)	Must be clear which method of training candidate is relating to	
	No breaks in continuous training	
	Uses aerobic respiration	
		(1)

Question Number	Answer	Mark
16(c)(iv)	Long distance events/equiv (1500m or greater?)	(1)

Question Number	Answer	Mark
16(c)(v)	Slow twitch	(1)

Question Number	Answer	Mark
16(c)(vi)	Cross/circuit (training)	(1)

Question Number	Answer						Mark
16(d)							
(i) - (ii)	Α	В	С	D			
(-)				Tick ON	1E		
	Body system	Effect	Ex-	1	R	LT	
	affected		planation				
			/ benefit				
			of effect				
	Skeletal	Stronger	Less likely			✓	
		bones /	to suffer				
		increased bone	from				
		density	osteopo- rosis				
	Circulatory /	Increased	Increased				
	Cardiovascul	SV/	maximum				
	ar system	Drop in	cardiac				
		resting HR	output				
		cardiac					
		hypertrop					
		hy/					
		increased					
		size or					
		strength of heart /					
		increased					
		strength					
		of con-					
		traction /					
		equiv					
	Circulatory	Reduction	Less likely			✓	
	/cardiovascul	in resting	to suffer				
	ar system	blood	with:				
		pressure	High blood				
			pressure /reduces				
			BP/				
			CHD/				
			stroke /				
			heart				
			failure /				
			attack				
	Circulatory	Increased	Increased	✓			
		heart rate	oxygen				
			(delivery)				
			CO ₂				
			removal				
			1 2.110 7 40				
							(9)
						(Tota	al 20 marks)

Question	Answer	Mark
Number		
17(a)(i)	Extended/extension Flexing/flexion	
	Hip	(3)

Question Number	Answer	Mark
17(a)(ii)	Flexed Biceps/biceps brachii	(2)

Question Number	Answer	Mark
17(b)	Ball and socket	(1)

Question Number	Answer	Mark
17I(i)	Knee	
	Hinge	
		(2)

Question Number	Answer	Mark
17I(ii)	A - Tendon B - Cartilage C - Bone/Tibia	
		(3)

Question	Answer	Mark	
Number			
17(d)	Any order, but symptom		
(i) - (ii)	NB Do NOT accept soft tis		
	(i) Possible injury	(ii) Signs / Symptoms	
	Concussion	Dizzy; (severe) headache;	
		vomiting; sickness; drowsiness;	
		dilated pupils/blurred vision; not	
		responding; blackouts/ loss of	
		memory; unconscious	
	Cuts/abrasions/bruises	Blood; pain/discolouration	
	Fracture/break /	Blood; pain; headache; swelling;	
	whiplash	sickness;	
		disfigurement/reduction in range	
		of movement	
	If (d) (i) incorrect, no cred		
			(4)

Question Number	Answer			Mark	
17(e) (i) - (ii)	DRABC	(i) What each letter stands for	(ii) Action required applied to the diver		
	D	Danger	Remove diver from the pool		
	R	Response	Pinch earlobe /Shake/speak to swimmer to see if they are conscious		
	A	Airway	Check the airway / Tilt the swimmer's head back and lift chin/place in recovery position to keep airway clear		
	В	Breathing	Check that the swimmer is breathing		
	С	Circulation	Check the swimmer has a pulse		
				(2 + 3)	
				(5)	
	(Total 20 marks)				

TOTAL FOR SECTION THREE: 60 MARKS

TOTAL FOR PAPER: 150 MARKS

2009 GCSE PHYSICAL EDUCATION (SHORT COURSE) MARK SCHEME - 3827

Question Number	Answer	Mark
Number 1 - 40	1. D 2. A 3. C 4. B 5 D 6 D 7. B 8. C 9. C 10. B 11. C 12. B 13. C 14. C 15. C 16. D 17. B 18. A 19. B 20. B 21. A 22. D 23. A 24. D 25. C 26. B 27. B 28. C 29. B 30. A 31. C 32. C 33. A 34. B 35. A 36. D 37. D 38. B 39. D 40. B	Muli K
		(40)