



General Certificate in Education

Physical Education 1580

PHED1

**Opportunities for and the effects of leading
a healthy and active lifestyle**

Mark Scheme

2009 examination - June series

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

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Section A**1**

Joint	(i) Joint Action
Hip	(Hyper) extension
Ankle	Plantar flexion

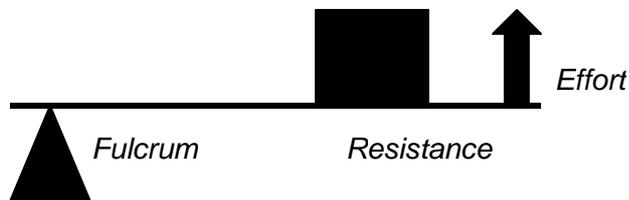
2 marks

(ii)

Joint	(ii) Main Agonist
Knee	Quadriceps
Ankle	Gastrocnemius

2 marks

(b)



1. 2nd class/order
2. Resistance in middle
3. Fulcrum/pivot, resistance/load, force/effort correctly labelled *3 marks*

(c)

1. Increased metabolic activity/increased carbon dioxide/increased lactic acid/drop in pH in the blood/increased acidity
2. Detected by chemoreceptors
3. Message to medulla/vasomotor control centre
4. Autonomic/sympathetic system/adrenaline/noradrenaline produced
5. Pre-capillary sphincters/arterioles
6. Vasoconstriction – to organs
7. Vasodilation – to muscles *3 marks*

(d)

1. Action of muscles contracting compresses veins
2. Veins have one way valves/to prevent backflow
3. Change in pressure/size of chest
4. Blood pushed towards heart *2 marks*

2

- (a) (i) 1. Ability to meet everyday demands/to cope 1 mark

- (ii) 1. Healthy – social, mental and physical well-being
2. Can be fit and healthy
3. Can be fit and unhealthy 2 marks

- (b) (i) 1. Food intake containing sufficient amounts (enough but not excess) of all the nutrients required/energy balance 1 mark

- (ii) **Advantages**
1. Energy source
2. Aerobic/low intensity/slow release
3. Source of vitamins
4. E.g. A, D, E or K sub max 3 marks

- Disadvantages**
5. Excess mass/weight/obesity
6. Bad for stamina/endurance
7. Limits range of movement/flexibility
8. Performer too warm/may overheat/limits heat loss
9. One of the following named diseases: atherosclerosis/atheroma, coronary heart disease, diabetes, cancers, high blood pressure

Sub max 3 marks
4 marks

- (c) 1. Increased carbon dioxide/lactic acid/acidity
2. Detected by chemoreceptors/baroreceptors/mechanoreceptors/proprioceptors/thermoreceptors
3. In carotid arteries/aortic arch
4. Nerve impulses to respiratory centre/medulla
5. Nerve impulses to breathing muscles/diaphragm/intercostal muscles
6. Phrenic nerve
7. Deeper and faster breathing 4 marks

3

(a)

1. Closed – unchanging environment/few decisions
2. Self-paced – performer decides speed of movement/when to start
3. Discrete – distinct beginning and end or serial – sequence of discrete skills
4. Gross – large muscle groups 4 marks

(b)

1. E.g. – use of rewards/praise or removal of criticism to encourage learning/repeat successful performance/change behaviour Sub max 1 mark
 2. Trial and error learning
 3. Strengthen S-R bond/successful response associated with stimulus
 4. Use of (positive/negative) reinforcement
 5. Shaping/altering environment to allow success Sub max 1 mark
- 4 marks

(c)

1. Positive transfer (of learning)/develop schema
2. Make performer aware of transfer potential/highlight elements of skill that are similar
3. Ensure original task is well learnt/practiced
4. Planned progression/part learning of skill/break skill down
5. Make practice sessions realistic/relevant/same movements
6. Eliminate bad habits
7. Practicing on trampoline is safer/reduce risk of injury
8. Repeated practice more possible – aids reinforcement
9. Only use if performer is well motivated/confident/avoid tedium

4 marks**4**

(a) (i)

4 correct for 3 marks, 3 correct for 2 marks, 2 correct for 1 mark:

1. Visual/sight/seeing
2. Auditory/hearing/sound
3. Touch/tactile
4. Kinesthetic/proprioceptive (including extrio- and intrio-) body awareness
5. Balance/equilibrium 3 marks

(ii)

1. Detection of stimuli
2. Comparison to memory stores
3. Recognition of stimuli
4. DCR as abbreviations
5. Selective attention/discrimination/interpretation/filtering

3 marks

(b)

1. Due to the single channel/bottle neck/limited processing capacity
2. One signal must be cleared before another can be responded to
3. Can only deal with one piece of information at one time/respond to one stimulus at a time
4. So the response to the second response takes longer
5. Psychological refractory period

3 marks

(c)

1. Realistic – to maintain motivation/gain satisfaction/increase confidence by being achievable
2. Specific – so performer has personalised goals/targets for an aspect of a sport/badminton
3. Time-based – so target has to be reached quickly/not too drawn out/allows evaluation/re-evaluation

3 marks

5

(a)

1. Improve health/fitness
2. Perform in a range of activities
3. Learn physical/social skills
4. Gain knowledge of the body in action
5. Become a 'critical performer'/different roles
6. Learn competitiveness/sportsmanship/teamwork/leadership
7. Become creative/problem-solving/cognitive skills/decision making
8. Face up to challenges/develop self-esteem/confidence
9. Learn how to plan, perform and evaluate
10. Make choices for 'lifelong learning'

4 marks

(b)

1. Free standing/no equipment/large numbers/small space
2. Standing in regimented rows/unison/class response
3. Taught by NCOs/ex-army
4. Adult exercises for children/took no account for children's needs
5. Static/no creativity/no skill development
6. Marching/weapon familiarity/pretend weapons
7. Mixed ages/sexes
8. Instructional/didactic/no interaction/command style
9. To develop fitness/health
10. Preparation for work/war
11. Obedience/discipline

4 marks

(c)

1. Part of Government's 'plan for sport'
2. Provide high quality PE and school sport
3. Raise standards of all pupils
4. Improve amount/time/range of PE
5. Meet Government targets/minimum 2/3/5 hours per week
6. Extra resources/facilities/teachers/coaches
7. Involves local secondary and primary schools/courses/competitions
8. School Sports Co-ordinator (SSCo)/PDMs
9. Foster community links/PESS(YP)/PESSCLS/school-club links

4 marks

6

(a) (i)

1. Public – open to all/subsidised service/social need/policy/run by local authorities
2. Private – exclusive/ability to pay/make a profit/commercial business

1 mark

(ii)

1. Public sector forced to account more for the use of local taxes
2. Need to improve efficiency of provision/resources/funds
3. Use of private sector methods to achieve the above/egs better facilities, qualified staff, surveys
4. Hence partnerships developed between the two sectors/working together/private companies running public facilities
5. Policy of 'best value'
6. Brief/basic explanation of best value/improving provision for minimal cost

3 marks

(b)

1. Run by members/committee/un-paid staff/parents
2. Possibly on trust/charity basis
3. Financed by members' fees/fund-raising/sponsorship/money placed back into club
4. Runs on profit-loss but profit not an overriding concern
5. Provide for grass roots of sport
6. Tries to increase participation/performance in their sport/look for talent
7. Meet up with people with similar interests

3 marks

(c)

1. Health/fitness/maintaining body/weight (fat) loss
2. Stereotypical ideals of women's physique/body image promoted by the media/fashionable activity/role model/socially acceptable
3. Increased leisure time
4. More independence/have become less tied to home/housework/equal opportunities
5. Greater disposable income
6. Greater mobility/accessibility to transport
7. Improvement in levels of provision/more opportunities, including at home/clubs/sessions

8. Improvement in child care facilities/crèches/nurseries
9. School PE programmes promote healthy lifestyle/lifelong learning/provide opportunities for such activities
10. Positive discrimination to encourage women's participation/women only sessions/social activity
11. Sport England promotes physical activity among under-represented groups such as women
12. Indoor/non-competitive/non-contact

5 marks

Section B**7**

A good answer must address parts (a) and (b) of the question adequately, and should consider accurately the following topic areas:

- Flexibility is the range of movement of a joint. Ways in which flexibility can be improved, addressing points such as:
 - Active stretching – holding a stretched position by contraction of your own agonistic muscles
 - Passive (or relaxed) stretching – stretch position being held by something other than the agonistic muscles
 - Static/PNF stretching – stretching to limit of range and then isometrically contracting the stretched muscles
 - Ballistic stretching – using movement to ‘bounce’ in and out of a stretch position
- Benefits to the performer of improved flexibility, addressing points such as:
 - Increased range of movement/reduce injury
 - Adopt held or aesthetic positions in gymnastic activities/alternative example
 - Can reach ball or player in games/alternative example
 - Can apply more power/longer levers in athletic activities/alternative example
- Types of feedback, addressing points such as:
 - Intrinsic/kinaesthetic – from within/proprioception
 - Extrinsic – augmented – from outside/coach/crowd
 - Concurrent/continuous – during skill performance
 - Terminal – following skill performance
 - Positive – praise and acknowledgement of a correct or successful action
 - Negative – external information about how a movement was incorrect or could have been better, critical comments
 - Immediate – feedback given straight after performance
 - Delayed – feedback that is given some time after the event
 - Knowledge of result (KR) – feedback in the form of information about how successful the movement was in accomplishing the task/feedback about the outcome/result
 - Knowledge of performance (KP) – information was given as feedback as to how well the movement was performed, regardless of the end result
- Explanation of how feedback may help a performer to improve:
 - Feedback motivates/suitable example
 - Feedback develops confidence
 - Feedback reinforces action/suitable example
 - Feedback corrects action/detects errors/suitable example

12 marks

The following table should be used to determine the mark.

Band Range	Band descriptors
Level 4 10-12	<ul style="list-style-type: none"> • Addresses all areas of the question, demonstrates a wide range of depth and knowledge • Expresses arguments clearly and concisely • Few errors in spelling, punctuation and grammar, correct use of technical language
Level 3 7-9	<ul style="list-style-type: none"> • Addresses most areas of the question, demonstrates a clear level of depth and knowledge • Attempts to express arguments clearly and concisely • Few errors in spelling, punctuation and grammar, correct use of technical language although sometimes inaccurately
Level 2 4-6	<ul style="list-style-type: none"> • Addresses some aspects of the question but lacks sufficient depth and knowledge • Limited attempt to develop any arguments or discussions, normally vague or irrelevant • Errors in spelling, punctuation and grammar, limited use of technical language
Level 1 1-3	<ul style="list-style-type: none"> • Addresses the question with limited success • Major errors in spelling, punctuation and grammar, little use of technical language