

Physical Education

General Certificate of Secondary Education

Unit **B453**: Developing Knowledge in Physical Education

Mark Scheme for June 2011

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Mark schemes should be read in conjunction with the published question papers and the Report on the Examination.

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Any enquiries about publications should be addressed to:

OCR Publications
PO Box 5050
Annesley
NOTTINGHAM
NG15 0DL

Telephone: 0870 770 6622
Facsimile: 01223 552610
E-mail: publications@ocr.org.uk

1 The following annotations are available:

- ✓ = correct response
- ✗ = incorrect response
- BOD** = Benefit of doubt
- IRRL** = Irrelevant
- REP** = Repetition
- VG** = Vague
- ? = Unclear
- L1** = Level 1
- L2** = Level 2
- L3** = Level 3

Highlighting is also available to highlight any particular points on the script.

Question	Expected Answer	Mark	Rationale/Additional Guidance
Section A Multiple Choice			
1	<p>Which one of the following pairs is a range of movement allowed by the hinge joint?</p> <p>(b) Flexion and extension</p>	[1]	
2	<p>Which one of the following is the best example of intrinsic feedback?</p> <p>(b) The feeling that a participant gets when they have performed well</p>	[1]	
3	<p>Which one of the following is an example of a school extra-curricular activity that promotes an active, healthy lifestyle?</p> <p>(a) A fitness club before school starts</p>	[1]	
4	<p>Which one of the following helps to reduce the risk of injury when participating in a physical activity on a playing field?</p> <p>(d) Wearing appropriate protective clothing</p>	[1]	
5	<p>Which one of the following is a long term effect of exercise on the respiratory system?</p> <p>(b) Increase in tidal volume</p>	[1]	
6	<p>Which one of the following is a typical problem associated with muscles when participating in physical activities?</p> <p>(d) Inflammation</p>	[1]	

Question	Expected Answer	Mark	Rationale/Additional Guidance
7	<p>Which one of the following is an example of extrinsic feedback?</p> <p>(b) Your teacher telling you that you did well in badminton</p>	[1]	
8	<p>Which one of the following is found in joints?</p> <p>(d) Synovial fluid</p>	[1]	
9	<p>Which one of the following best describes the role of the agonist in muscle movement?</p> <p>(b) Produces the movement</p>	[1]	
10	<p>Which one of the following is an example of sponsorship?</p> <p>(c) A drinks company giving money for a fun run event</p>	[1]	
11	<p>Which one of the following is a term given for changes in blood flow to muscles during exercise?</p> <p>(d) Vascular shunt</p>	[1]	
12	<p>Which one of the following is a good example of a performer controlling their emotions during physical activity?</p> <p>(c) Accepting a decision by the official which you think is wrong</p>	[1]	
13	<p>Which one of the following is the most appropriate role model for learning physical activity skills?</p> <p>(a) A well qualified coach</p>	[1]	

Question	Expected Answer	Mark	Rationale/Additional Guidance
14	Which one of the following best describes the plyometrics training method? (d) Involves mainly bounding/hopping	[1]	
15	Which one of the following best describes reversibility as a training principle? (c) Performance can deteriorate if training stops	[1]	
	Total	[15]	

Question	Expected Answer	Mark	Rationale/Additional Guidance
Section B			
16	<p>Give <u>three</u> short term effects of exercise on the heart.</p> <p>3 marks for 3 from:</p> <ol style="list-style-type: none"> 1. Increase in heart/pulse rate 2. Increase in cardiac output / more blood pumped out per minute 3. Increase in stroke volume / increase in blood (pumped out per beat) 	[3]	Increase / bigger blood flow = BOD (Pt3)
17	<p>Identify the <u>four</u> components of the FITT principle of training.</p> <p>4 marks for 4 from:</p> <ol style="list-style-type: none"> 1. Frequency 2. Intensity 3. Time 4. Type 	[4]	Accept Any order of these components

Question	Expected Answer	Mark	Rationale/Additional Guidance
18	<p>Identify and describe <u>three</u> ways that local authority provision can promote participation in physical activities.</p> <p>6 marks for 6 from: 3 marks max for i/d (odd numbers) 3 marks max for descriptions (even numbers)</p> <ol style="list-style-type: none"> 1. Sports centres/indoor facilities/equipment 2. Local facilities that serve the community 3. Swimming pools 4. Available for all in locality 5. Parks and sports grounds /green space /school fields / tennis courts 6. For tennis / a range of outdoor activities 7. Outdoor/adventurous Education Centres 8. For outdoor education activities / climbing etc 9. Sports development officers/5 x 60 Officers/ coaches 10. Co-ordinate/promote activities in the locality 11. Analyse local needs 12. To know what people want/surveys/target resources 13. Promotional campaigns/web site 14. Healthy lifestyle/eating/exercise campaigns 15. Courses/taster sessions/activities/events presentations/ (new) sports available / teams / clubs / leagues 16. These encourage people to participate 		<p>3 marks max for identification only (odd numbers). 3 marks max for descriptions only (even numbers).</p> <p>Accept equivalent or relevant description with identification E.g. A sports centre (pt1) can promote participation by being open for long periods of time (eq to pt 2) = 2 marks.</p> <p>Do not be restricted by the exemplar descriptors in the mark scheme – if a candidate has given a valid description of <u>how</u> the provision promotes participation then give the mark.</p> <p>Accept identification and description mark in one sentence e.g. Local swimming pools can encourage participation in swimming = 2 marks (the candidate has idea of the provision and how being local would encourage participation).</p> <p>Do not accept sponsorship = Vg</p> <p>Do not accept: non-local authority clubs eg local rugby club</p> <p>Do not accept: 'promote participation' on its own as a description (in the question)</p>

Question	Expected Answer	Mark	Rationale/Additional Guidance
18 continued	17. Help with funding/concessions/cheaper 18. Enable those who have limited income to participate 19. Coach education programmes 20. This enables people to be qualified in leading activities 21. Specific target groups/youth clubs 22. Disabled/older/younger/ people/ etc catered for/encouraged 23. Use role models / sports stars to promote 24. To inspire / motivate for participation 25. Transport 26. To enable easier access	[6]	
19	<p>Identify <u>five</u> potential hazards that may be found in a fitness centre.</p> <p>5 marks for 5 from:</p> <ol style="list-style-type: none"> 1. Poorly maintained / faulty / broken / unclean equipment 2. Equipment / wires (trip hazard) that are obstacles/gets in the way/improperly housed / blocked fire doors 3. Falling equipment/weights/unstable 4. Floor slippery/rough/uneven / dirty / water / hard floor 5. Litter/discarded objects/bags 6. Improper use of the equipment/lifting too many weights/overdoing the exercise / lack of knowledge 7. Electrical equipment 8. Crowded area/too many people/other participants 9. Clothing/improper footwear/jewellery/loose hair 10. Door handles / radiators / fixtures and fittings (other than activity equipment) / walls 11. Air conditioning / heating problems / too hot / too cold 12. Swimming pool water 	[5]	Do not accept: Unqualified staff as a hazard

Question	Expected Answer	Mark	Rationale/Additional Guidance
20	<p>Explain the SMART principle of goal setting and describe why goal setting is important for an active, healthy lifestyle.</p> <p>6 marks max</p> <p>SMART – (must be explain rather than just i/d sub max of 1 if i/d only) 5 Marks Max</p> <ol style="list-style-type: none"> 1. S – Specific activity to your needs 2. M – Measurable – goals need to be assessed to see how well you are doing 3. A – Achievable/agreed – goals must be within your reach/capabilities or they can be agreed with your teacher/coach 4. R – Realistic/recorded – goals must not be too challenging or you will fail or they should be recorded so that you can refer back to them to see how you are getting on 5. T – Time (phased) – because goals should be planned over a period of time <p>Why</p> <p>3 marks max</p> <ol style="list-style-type: none"> 6. To get better/increase/optimize performance/ to keep fit 7. To ensure participation continues/keep exercising/training/ensure exercise adherence 8. To control anxiety/stress 9. To motivate/enthusiasm / gain satisfaction / enjoyment / raises confidence / something to aim for. 	[6]	<p>If a COMPLETE list only of what SMART stands for then give only 1 mark.</p> <ul style="list-style-type: none"> - 5 marks maximum for explanation of SMART - 3 marks maximum for why goal setting is important - Remember overall mark cannot be above 6 total.

Question	Expected Answer	Mark	Rationale/Additional Guidance
21	<p>Explain when and how lactic acid affects the ability of the body to maintain physical activity.</p> <p>4 marks for 4 from:</p> <ol style="list-style-type: none"> 1. During exercise 2. When there is a lack of oxygen / anaerobic 3. When working hard/high intensity activity 4. Builds up in muscle 5. Causes fatigue / tiredness 6. Causes pain / discomfort / aches / soreness 7. So more likely to stop the activity 8. Decrease performance level in the activity / slows you down 	[4]	Do not accept: cramp / stiffness
22	<p>Describe the effects of mental preparation on the performance of physical activities.</p> <p>4 marks for 4 from:</p> <ol style="list-style-type: none"> 1. Improves performance / enables tactical or strategic decision- making / fewer mistakes 2. Helps to prevent injury 3. Helps to control emotions / motivates you / psyches you up / thinks positively / not afraid 4. Helps to relax/cope with stress / controls arousal 5. Helps to focus/selective attention / concentrate 6. Able to visualise/use imagery 7. Quicker reactions /responses / quicker decision making 8. Helps to raise confidence / self esteem 9. Enables fair play 	[4]	Do not accept 'prepares mentally' / 'gets you ready'. Accept equivalent and relevant responses.
23	<p>Give <u>three</u> examples of National Governing Bodies and name the sports they represent.</p> <p>3 marks for: Eg FA – Football LTA – tennis ASA – swimming etc</p>	[3]	<ul style="list-style-type: none"> - For three marks max - 3 examples of recognised governing bodies (accept abbreviations) - but must have sport they represent . <p>Accept: BOA as a National Governing Body = BOD Accept: Old and new versions of NGB's</p> <p>Do not accept international bodies.</p>

Question	Expected Answer	Mark	Rationale/Additional Guidance
24	<p>Give <u>two</u> positive effects and <u>two</u> negative effects that the media may have on following an active, healthy lifestyle.</p> <p>4 marks for 4 from: 2 marks sub/max for positive</p> <p>Positive</p> <ol style="list-style-type: none"> 1. Promotes sport /exercise / increases interest through sports coverage / raises profile 2. Promotes healthy living 3. Motivates through role models / sports stars / successful / attractive people / want to look like them 4. Promotional campaigns / public service broadcasting 5. Wide variety on some channels / some minority sports 6. Have created funds / sponsorship that can be used to encourage health / more funding for sports 7. Gives information about healthy lifestyles eg the internet <p>2 marks max for negative (only 1 mark max for opposites)</p> <p>Negative</p> <ol style="list-style-type: none"> 8. May reinforce unhealthy lifestyle / alcohol / drugs consumption / gambling / poor role-models 9. Too much contact with the media discourages activity / 'couch potato' syndrome 10. Minority sports under-represented / not many sports shown or represented / only a narrow representation of sports are shown or represented 11. Women's sport / activity under-represented / mis-represented 12. Disability sport under-represented / mis-represented 13. Campaigns against provision. 	[4]	<p>2 marks max for positives 2 marks max for negatives</p> <p>If just opposite point then 1 mark max if no further explanation E.g. media can promote sport or can put people off sport = 1 mark (pt 1);</p> <p>Media can promote sport (pt 1) but could put people off sport because only a few sports are shown (pt 10) = 2 marks</p>

Question	Expected Answer	Mark	Rationale/Additional Guidance
25*	<p>Physical activity skills can be learned by using a variety of methods.</p> <p>Describe, using practical examples, methods that assist in the learning of physical activity skills.</p> <p>Levels marked question</p> <p>Level 1 1–2 marks Candidates make only one or two valid points about how you might learn physical activity skills using only one or two methods and describes only very superficially. There is little or no use of technical vocabulary and sentences have limited coherence and structure. There is much irrelevant material. Few or no relevant practical examples. Errors in grammar, punctuation and spelling may be noticeable and intrusive.</p> <p>Level 2 3–4 marks Candidates make some valid points about how you might learn physical activity skills using some methods with good knowledge and understanding. There is some use of technical vocabulary and sentences for the most part are relevant and are coherent. Some relevant practical examples. There are occasional errors in grammar, punctuation and spelling.</p> <p>Level 3 5–6 marks Candidates make many developed points about how you might learn physical activity skills using a variety of methods.</p>		<p>Differentiating between levels look for:</p> <p>Level 1:</p> <ul style="list-style-type: none"> - At least one valid method identified - Identification rather than description - Few or no practical examples <p>Level 2:</p> <ul style="list-style-type: none"> - At least 2 valid methods identified - Some description with little development - Valid practical examples <p>Level 3:</p> <ul style="list-style-type: none"> - At least 3 valid methods identified - Some points are developed / expanded - Good practical examples - Very few QWC errors <p>Always indicate the level at the end of the response</p>

Question	Expected Answer	Mark	Rationale/Additional Guidance
25 continued	<p>Candidate demonstrates excellent knowledge and understanding of the factors involved. Candidate gives relevant material that is clearly structured and using appropriate terminology and technical vocabulary. Good, relevant practical examples. There are few, if any, errors in grammar, punctuation and spelling.</p> <p>Indicative content – (Explain how you might learn physical activity skills using a variety of methods)</p> <ol style="list-style-type: none"> 1. Practice / rehearsal / types of practice (whole/part) 2. Through trial and error / having a go / learn by doing 3. Via a demonstration / visual guidance / modelling 4. Watching and copying others / observation learning 5. Watching video's / reading books 6. More likely if others are significant/role models 7. Being coached / taught/verbal guidance 8. Feedback from others 9. Knowledge of results / performance 10. You understand what you need to learn 11. (Operant) conditioning 12. Being praised / reinforcement / rewards 13. Setting yourself (SMART) goals 14. Mental practice / rehearsal 15. Being determined / well motivated 16. Via mechanical / manual guidance 	[6]	
	Total	[45]	
	Paper Total	[60]	

OCR (Oxford Cambridge and RSA Examinations)
1 Hills Road
Cambridge
CB1 2EU

OCR Customer Contact Centre

14 – 19 Qualifications (General)

Telephone: 01223 553998

Facsimile: 01223 552627

Email: general.qualifications@ocr.org.uk

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Facsimile: 01223 552553

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