

Mark Scheme (Results)

Summer 2014

Pearson Edexcel GCSE  
in Physical Education (5PE01) Paper 1

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**5PE01/01 – June 2014 mark scheme**

**Section A: Computer Marked**

Question Number	Answer	Mark
<b>1a</b>	<b>D</b> Cooperation	<b>1</b>
Question Number	Answer	Mark
<b>1b</b>	<b>D</b> Family, fashion, race, access, illness, cost	<b>1</b>
Question Number	Answer	Mark
<b>1c</b>	<b>B</b> A form of physical activity to maintain or improve health and/or fitness	<b>1</b>
Question Number	Answer	Mark
<b>1d</b>	<b>C</b> Circuit	<b>1</b>
Question Number	Answer	Mark
<b>1e</b>	<b>A</b> Bone structure, gender, muscle girth, height	<b>1</b>
Question Number	Answer	Mark
<b>1f</b>	<b>D</b> Anorexic – a term meaning a prolonged eating disorder due to loss of appetite	<b>1</b>
Question Number	Answer	Mark
<b>1g</b>	<b>B</b> Stroke volume	<b>1</b>
Question Number	Answer	Mark
<b>1h</b>	<b>C</b> Air we can breathe out after breathing in fully.	<b>1</b>
Question Number	Answer	Mark
<b>1i</b>	<b>A</b> Inability to continue training	<b>1</b>
Question Number	Answer	Mark
<b>1j</b>	<b>A</b> Strain	<b>1</b>

## Section B: ePEN Marking

Question	Answer	Do not accept	Additional Guidance	Marks	Total
2 (ai)	Mental		Accept Psychological	1x1	(1)
2 (aii)	Physical		Only acceptable answer	1x1	(1)
2 (b)	<p>A <b>linked explanation</b> that makes reference to the following:</p> <ul style="list-style-type: none"> <li>Physical activity often involves playing in a team/being part of a team/taking part with others <b>(1)</b>. You need to work with others/team mates/display teamwork <b>(1)</b> therefore, you need to be able to listen to others ideas/agree a tactic this helps you develop cooperation <b>(1)</b></li> </ul>	<p><i>Other social benefits, eg make new friends;</i></p> <p><i>interacting (as may not be cooperative)</i></p> <p><b>Marking point 2:</b> <i>Do not accept 'cooperate' as explanation</i></p> <p><b>Marking point 3:</b> <i>Description of communication, e.g. calling for the ball, example for point 3 must be of cooperation</i></p>	<p><b>Marking point 1:</b> <i>Cooperate with team mates can be credited here</i></p> <p><b>Marking point 3:</b> Accept alternative examples of an aspect of team work to listening to others, e.g. Responding to others requests/ put personal issues aside for the sake of the team/equiv</p>	1x3	(3)

Question	Answer	Do not accept	Additional Guidance	Marks	Total
3 (a)	<p>Any <b>one</b> of the following:</p> <p>Any correctly identified NGB /International governing body (e.g. FIFA/EUFA)</p> <p><i>Credit standard abbreviation of NGB's or written in full.</i></p> <p>e.g: FA (Football Association) WRU (Welsh Rugby Union) RFU (Rugby Union - England)</p> <p>Useful website of NGB's: <a href="http://www.sportengland.org/our-work/national-work/national-governing-bodies/sports-that-we-recognise/">http://www.sportengland.org/our-work/national-work/national-governing-bodies/sports-that-we-recognise/</a></p>	<p><i>Initiatives, eg PESCL Sport England or other Institutes of sport Youth Sports Trust</i></p>	<p><i>Use website to check candidate response if NGB not known to you</i></p> <p><i>Accept 'British' rather than 'English' provided the rest of the name of the NGB is correct. (E.g. British TT association).</i></p>	<b>(1x1)</b>	<b>(1)</b>
3 (b)	<p><b>Description</b> from <b>two</b> of the following:</p> <p>1. Increase participation /get people to participate (1) to improve health/fitness/have a healthy lifestyle OR with a focus on priority groups (1)</p> <p><b>OR</b></p> <p>2. Retain people in sport (1) for health/fitness OR through club links/ <i>Better facilities</i>/ through a variety of different roles (1)</p> <p><b>OR</b></p> <p>3. Increase sporting success of country /more medals (1) by developing talent/ talented performers produce more elite performers (1)</p>	<p><i>Examples not linked to physical activity e.g. healthy eating.</i></p> <p><i>Pt3. Better facilities</i></p>	<p><b>For this question, <u>can</u> achieve marks across points on m/s. as they are interchangeable, e.g. developing talent can lead to increased participation.</b></p> <p><i>Max 2 marks per purpose.</i></p> <p><i>NB Any reference to increasing health/fitness should be credited. Only credit reference to health/fitness <b>once</b></i></p>	<b>2x2</b>	<b>(4)</b>

Question	Answer	Do not accept	Additional Guidance	Marks	Total												
4 (a)	<p><b>Two</b> of the following <b>in any order:</b></p> <p><b>1.</b> Cardiovascular fitness/ Cardiovascular endurance/CV fitness/stamina <b>OR</b> Aerobic endurance/aerobic fitness</p> <p><b>2.</b> Muscular/Muscle endurance</p>	<p><i>Other components of health related exercise</i></p> <p><i>The word 'Cardiovascular' without reference to fitness or endurance</i></p>	<b>Pt. 1</b> Only 1 mark available for options.	<b>2x1</b>	<b>(2)</b>												
4 (b)	(i)	Flexibility  Accept phonetic spelling	<i>Suppleness</i>	<b>1x1</b>	<b>(1)</b>												
4(b)	(ii)	<p><b>NB – do not 'mark' (bi) this has already been marked it is only shown to allow judgement for (bii) – see table below</b></p> <p><b>The answer in (bii) must be the correct fitness test for the answer in (bi). Only accept the stated fitness test(s) for the identified component of health-related fitness given in the table below.</b></p> <table border="1"> <thead> <tr> <th>Answer in (bi)</th> <th>Required answer for (bii) to match (bi)</th> </tr> </thead> <tbody> <tr> <td>Flexibility</td> <td>Sit and reach (flexibility test)</td> </tr> <tr> <td>(Muscular) strength</td> <td>1RM/grip dynamometer/hand grip test</td> </tr> <tr> <td>Cardiovascular fitness/cardiovascular endurance/aerobic endurance/equiv</td> <td>12 min cooper run/Harvard step test/MSFT/Multi-stage fitness test/treadmill test/Forestry step test <i>NB- Accept any common names of test e.g.12 min run/Cooper's test/Bleep test</i></td> </tr> <tr> <td>Muscular endurance</td> <td>1 minute press-up/sit-up test</td> </tr> <tr> <td>Body composition</td> <td>Skinfold test/BMI/BIA</td> </tr> </tbody> </table>		Answer in (bi)	Required answer for (bii) to match (bi)	Flexibility	Sit and reach (flexibility test)	(Muscular) strength	1RM/grip dynamometer/hand grip test	Cardiovascular fitness/cardiovascular endurance/aerobic endurance/equiv	12 min cooper run/Harvard step test/MSFT/Multi-stage fitness test/treadmill test/Forestry step test <i>NB- Accept any common names of test e.g.12 min run/Cooper's test/Bleep test</i>	Muscular endurance	1 minute press-up/sit-up test	Body composition	Skinfold test/BMI/BIA	<b>1x1</b>	<b>(1)</b>
Answer in (bi)	Required answer for (bii) to match (bi)																
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Question	Answer	Do not accept	Additional Guidance	Mark s	Total
4	<p data-bbox="233 304 280 338"><b>(c)</b></p> <p data-bbox="316 304 715 371"><b>Explanation</b> from <b>ONE</b> of the following:</p> <ol data-bbox="316 416 715 1794" style="list-style-type: none"> <li data-bbox="316 416 715 685">1. Using a specific target <b>(1)</b> will mean they focus on area for improvement/weakness/relevant aim <b>(1)</b> therefore improvement is more likely leading to motivation <b>(1)</b></li> <li data-bbox="316 696 715 965">2. By setting a measureable goal <b>(1)</b> they can see progress / monitor progress <b>(1)</b> knowing their training is working/ improving will motivate them to continue with it. <b>(1)</b></li> <li data-bbox="316 976 715 1245">3. Ensuring target is achievable/realistic <b>(1)</b> so they know they can complete it/they have access to facilities/time (1) which motivates them to continue to train/work hard <b>(1)</b></li> <li data-bbox="316 1256 715 1794">4. Make time bound/time based <b>(1)</b> so there is a definite point when the target must be achieved <b>(1)</b> therefore makes them motivated to work hard to achieve within time frame/keeps training interesting/ challenging as won't get bored with same target as set new target once completed/ won't put off training <b>(1)</b></li> </ol>	<p data-bbox="746 730 991 976">Points 2 – 3 – marking points are hierarchical, cannot achieve marking point 3 without marking point 2.</p> <p data-bbox="746 1794 991 1897"><b>Pt 5</b> – do not accept 'time' on own as principle</p>	<p data-bbox="1023 304 1254 506">Must be developed explanation relating to ONE aspect of SMART</p> <p data-bbox="1023 551 1254 1077">Response requires correctly identified principle to base explanation on however if obvious can still credit explanation even if principle not credited, e.g. measure, time frame.</p> <p data-bbox="1023 1122 1254 1290">Credit reference to any of the SMART principles for max 1 mark.</p> <p data-bbox="1023 1335 1254 1536"><b>Pt. 3</b> Accept reference to not being demotivated instead of motivated</p>	<p data-bbox="1307 1088 1370 1122"><b>1x3</b></p>	<p data-bbox="1433 1088 1497 1122"><b>(3)</b></p>

Question		Answer	Do not accept	Additional Guidance	Marks	Total
5	(ai)	To avoid being tackled by opponent/to get past opponent/sidestep/to <u>change his direction quickly</u>		<i>Accept any response indicating getting past the opponent, e.g. to dodge opponent; outmanoeuvre opponent</i>	<b>1x1</b>	<b>(1)</b>
5	(aii)	1.To maintain/keep centre of gravity (mass over base of support) 2.To stop from falling forward (when defending) 3.To maintain/keep/remain in/hold/stabilise/stay in defensive position/to allow you to maintain position when trying to make yourself as tall as possible to block shot	<i>Reference to player with the ball</i>	<i>Must relate to maintaining position or preventing falling</i>	<b>1x1</b>	<b>(1)</b>



Qu	Answer	Do not accept	Additional Guidance	Mark s	Total
5b	<p>Any <b>two</b> explanations that describe what the component is used for and an example of its application from:</p> <ol style="list-style-type: none"> <li><b>Power</b> – for height/acceleration/force (1) to intercept cross/make shot more difficult to save (1) Accept other relevant explanations E.g. to kick the ball a long way/hard shot (1) to clear the ball and get the team out of trouble/more likely to score a goal (1)</li> <li><b>Reaction time</b> – shots can be deflected (1) therefore need to be able to adjust position quickly to save the shot (1) Accept other relevant explanations eg to make quick decisions (1) so opponent has less time to take the ball from you (1)</li> <li><b>Speed</b> – for pace in game (1) therefore get in space for pass/to lose marker (1) Accept other relevant explanations eg get past opponent/be first to collect loose ball (1) to allow counter-attack/gain possession (1) OR catch up attacker (1) to prevent them from scoring (1)</li> <li><b>Coordination</b> – credit example that uses more than one body part e.g. hand/eye (1) so that the racket makes correct contact with shuttle so effective shot/to improve their technique/correct technique/increase accuracy/control (1)</li> </ol>	<p><i>Agility</i> <i>Balance</i></p> <p><i>Responses that are not linked to 'games' activities.</i></p> <p><i>Responses explaining the importance of health-related exercise</i></p> <p><i>Definitions</i></p> <p><b>Pt 3</b> – do not credit a simple repeat of the term, e.g. need to react quick to the game</p>	<p><i>No credit for naming component</i></p> <p><i>Accept responses linked to other <b>games</b> activities</i></p> <p><i>Answers can be for the same game or different games, but only credit each component once.</i></p> <p><i>To gain two marks the second point must be a development of the first point.</i></p> <p><i>If more than one component of fitness is listed for each explanation use first answer only.</i></p>	<b>2x2</b>	<b>(4)</b>

	Accept other relevant explanations, e.g. a description of the use of two or more body parts – (1) and impact of this (1)				
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Question		Answer	Do not accept	Additional Guidance	Marks	Total
6	(a)	Carbohydrates	<i>Carbs</i>	<i>Do accept phonetic spellings</i>	<b>1x1</b>	<b>(1)</b>
6	(b)	Remember we are not marking part (a)  Provides energy	<i>Slow release energy</i>	<i>As reference is made to the 'missing nutrient' in the table response must relate to carbohydrates  Can credit provides energy even if incorrect nutrient identified in (a) or if no nutrient identified in (a)</i>	<b>1x1</b>	<b>(1)</b>
6	(c)	Credit <b>specific</b> reference to exercise, e.g:  Weight bearing exercise OR Relevant example, e.g. aerobics/walking/jogging/running  NB. If candidate has identified sunshine in detail i.e. spend 15 mins in the sun two to three times a week can credit.	<i>Working out is too vague. Exercise Weight training, <u>unless</u> detail given linking to movement/ supporting own body weight</i>	<i>Accept first answer only (unless crossed through, e.g. cycling and running would be marked incorrect)  Accept answer that implies regular weight bearing activity, as lifestyle choice e.g. walking to school/work</i>	<b>1x1</b>	<b>(1)</b>

Question		Answer	Do not accept	Additional Guidance	Marks	Total
6	(d)	<p>A <b>linked explanation</b> that makes reference to the following:</p> <ul style="list-style-type: none"> <li>• Blood shunting/vascular shunt (is used to control volume of blood flow to different areas of the body) (1)</li> <li>• To digest food the digestive system needs a (greater) blood supply (1)</li> <li>• But during exercise muscles need a greater blood supply/blood shunted from stomach to working muscles (1)</li> <li>• Therefore there would be insufficient blood flow to exercise effectively as needed by the digestive system (1)</li> <li>• Therefore food would not be completely broken down (1)</li> </ul>	<p><i>Oxygen</i> <i>Reference to energy systems</i></p> <p><i>Not stops vomiting/cramp/stitch, as these are consequence of bullet point 5</i></p>	<p><i>Marking point 5 can be credited for general statement about food not having time to be digested/broken down. All other points must be in relation to blood flow.</i></p>	<b>1x3</b>	<b>(3)</b>

Question	Answer	Do not accept	Additional Guidance	Mark s	Total
7	1. Very muscular/high muscle mass <b>(1)</b> so they can run fast in the 100m sprint /apply more force to the blocks for a quicker start <b>(1)</b>	<p><i>Large build unless qualified further in relation to muscles</i></p> <p><i>Fast twitch muscle fibres</i></p> <p><i>'Strength' as replacement for power or muscular</i></p> <p><i>Responses that fail to give a characteristic</i></p>	<p><i>2<sup>nd</sup> point must link to 100 m</i></p> <p><i>Credit other characteristics that differentiate this body type, e.g. solid build/wide shoulders for 1 mark – cannot get extension mark unless linked to muscle mass.</i></p>	<b>1x2</b>	<b>(2)</b>

Question	Answer	Do not accept	Additional Guidance	Mark s	Total
8	<p>(a) <b>Identification</b> and <b>explanation</b> from <b>one</b> of the following:</p> <ol style="list-style-type: none"> <li>1. Helmet <b>(1)</b> protects the skull from possible fractures/head injury/brain damage/concussion if the rider falls <b>(1)</b> by acting as a shock absorber/taking the impact, cushioning the blow to the brain. <b>(1)</b></li> <li>2. Goggles <b>(1)</b> protect from debris in eye <b>(1)</b> by providing a shield between the activity environment and the eyes. <b>(1)</b></li> <li>3. Leg padding/gloves <b>(1)</b> reduces cuts to skin <b>(1)</b> by placing a physical barrier between the skin and the ground should the rider fall. (1)</li> <li>4. Shoes (1) increases friction on peddle so foot does not slip (1) keeping control of bike and position so successfully land moves. (1)</li> <li>5. Tight clothing (1) reduces the risk of fractures/bruises/ breaks as a result of falling (1) due to clothing getting caught in gears causing you to crash (1)</li> </ol>	<p><i>Do not accept the following:</i></p> <p><i>Examples not in shown in Figure 1.</i></p> <p><i>Explanation that does not link to stated risk</i></p> <p><i>Reference to 'damage' other than the head in point 1</i></p>	<p><i>Cannot achieve marks across points on m/s. I.e. to gain max marks must link specific risk reduction measure and explanation of how this reduces risk.</i></p> <p><b>Pt. 3</b> accept alternative injuries, e.g. bruises; breaks; friction burns. Accept reference to reducing impact providing relevant to suggested injury</p>	1x3	(3)

Question	Answer	Do not accept	Additional Guidance	Mark s	Total
8	<p>(b) <b>One</b> from the following:</p> <ol style="list-style-type: none"> <li>1. Warm up/stretch/mobilise joints <b>(1)</b> prevents muscle tear <b>(1)</b> by increasing elasticity of muscle/by gradually increasing intensity muscles required to work at (1).</li> <li>2. Check equipment /playing area <b>(1)</b> as brakes allow more control of speed (1) otherwise could go too fast, crashing, resulting in head injury/equiv (1)</li> <li>3. Use of PAR-Q <b>(1)</b> to identify pre-existing health issues (1) session can then be tailored to health needs to reduce risk of overexertion <b>(1)</b></li> <li>4. Entering correct level of competition <b>(1)</b> attempting a track that is too difficult for your standard means more likely to crash <b>(1)</b> leading to cuts/breaks <b>(1)</b></li> </ol>	<p><i>During event, e.g. Safety rules</i>  <i>Use of correct technique</i>  <i>Protective clothing</i>  <i>After event, e.g</i>  <i>Cool down</i></p>	<p><i>Can relate to any physical activity</i></p> <p><i>It must be clear which point the risk reduction measure links to on m/s before further marks for explanation can be credited.</i></p> <p><i>Pt 2 – check (1) example of potential issue – loose chain/worn brakes (1) – the injury this would prevent</i></p> <p><b>Pt 4 – allow reference to poor fitness if developed as shown in point 4.</b></p>	<p><b>1x3</b></p>	<p><b>(3)</b></p>

Question		Answer	Do not accept	Additional Guidance	Marks	Total
9	(ai)	long term / regular training			1x1	(1)
9	(aii)	Increases Increased Increase in Larger Greater	<i>Increased stroke volume</i>	<i>Accept response that implies 'more' eg quickens or gets faster</i>	1x1	(1)
9	(aiii)	<b>One</b> from:  <u>Cardiac hypertrophy</u> Increased heart size/strength of heart Capillarisation Increased <u>maximum</u> cardiac output Increased <u>resting</u> stroke volume Drop in <u>resting</u> heart rate Drop in <u>resting</u> blood pressure	<i>Adaptations to other body systems, e.g. muscular hypertrophy; increased alveoli</i>  <i>More capillaries</i>	<i>Credit other examples of long term training effects on the CV system, including drop in LDL</i>	1x1	(1)
9	(b)	Increases Makes high/higher		<i>Accept response that implies 'more'</i>	1x1	(1)



Question	Answer	Do not accept	Additional Guidance	Mark s	Total
10	<p><b>Four</b> from the following:</p> <ol style="list-style-type: none"> <li>1. Antagonistic is when one of the muscles contracts, <b>AND</b> the other relaxes <b>(1)</b></li> <li>2. Muscles correctly identified in relation to correct joint (Biceps, triceps working at elbow OR hamstrings, quadriceps working at knee) <b>(1)</b></li> <li>3. The biceps contract to flex the arm at the elbow <b>OR</b> The triceps contract to extend the arm <b>(1)</b></li> <li>4. The quadriceps contract to extend the leg at the knee <b>OR</b> the hamstrings contract to flex the leg at the knee. <b>(1)</b></li> </ol>	<p><i>Point 1 – Not - when a pair of muscles work together/work against each other</i></p> <p><i>Pt 2 – not quads/hamies</i></p> <p><i>Pt 3 &amp; 4 – not extend in relation to muscles</i>  <i>Pt 3 &amp; 4 – not straighten and bend for joint action</i></p>	<p><i>Max 1 mark per numbered point on m/s</i></p> <p><i>If response states biceps contract and the triceps relax to provide flexion at the elbow would gain pt 1; 2 and 3.</i></p> <p><i>Must relate to contraction of muscle (not muscle pulls/muscle flexes/extends)</i></p>	<b>1x4</b>	<b>(4)</b>

Question		Answer	Do not accept	Additional Guidance	Marks	Total
11	(a)	<p>Movement range can be stated in <b>any</b> order</p> <ol style="list-style-type: none"> <li>1. Rotation/rotate</li> <li>2. Abduction/abduct (to) adduction/adduct (or visa versa)</li> </ol>	<p><i>Reference to flexion and extension as given in question</i></p> <p><i>Circumduction</i></p>	<p><i>Pt 2 Must state both terms for credit.</i></p> <p><i>Pt 2 – if <b>only</b> stated abduction/adduction but over two lines can gain 1 mark.</i></p>	<b>2x1</b>	<b>(2)</b>
11	(b)	<p>Credit any example that involves moving upper arm/whole arm rather than just lower arm, e.g. arm action when diving into a pool or any movement involving rotation of upper arm (as must flex/extend shoulder to achieve this), e.g. butterfly arm action, arm action in front somersault, bowling action in cricket</p> <p><b>(1)</b></p>	<p><i>Do not accept action not involving movement of the upper arm, e.g. biceps curl</i></p> <p><i>Name of sport without specific action e.g weight lifting.</i></p> <p><i>Non specific example, e.g. tennis shot/hitting a ball/boxing punch</i></p>	<p><i>Shoulder extension occurs when the upper arm is moved downwards (from an upright position, e.g. volleyball block) towards the rear of the body. Therefore accept action involving 'overarm' movement, e.g. (follow through after) tennis serve, throwing a ball, shooting in basketball</i></p>	<b>1x1</b>	<b>(1)</b>

Question	Answer	Do not accept	Additional Guidance	Marks	Total
12	<p>(a) A description that makes reference to <b>two</b> of the following linked points:</p> <ol style="list-style-type: none"> <li>1. By reducing intake of saturated fats (1) arteries will remain clear/not blocked <b>(1)</b> <b>OR</b> by eating foods low in <u>LDL</u> cholesterol/reduce high cholesterol foods (1) to prevent build up of fatty deposits/maintain blood flow (1)</li> <li>2. Exercise <b>(1)</b> to release serotonin to reduce stress/lose weight if overweight/limit thickening of walls of arteries (1)</li> <li>3. Make positive lifestyle choice/or gives an example of positive lifestyle choice (1) and how this relates to BP (1), For example play sport/use relaxation methods (1) to reduce stress to reduce blood pressure (1)</li> </ol> <p>Credit reference to taking medication prescribed by a doctor - max 1 mark</p> <p>Descriptions must differ, if exercise/play sport is mentioned in both examples can only credit max 3 marks.</p>	<p><i>Pt 3 – in this example stress must first be linked to elevated blood pressure, therefore techniques to reduce stress would reduce BP</i></p>	<p><b>Pt. 1</b> <i>Relates to diet - allow reference to other aspects of diet, e.g. salt intake; foods high in fibre/ balanced diet.</i></p> <p><b>Pt. 2</b> <i>Relates to use of exercise, must imply regular for 2 marks</i></p> <p><b>Pt. 3</b> <i>Relates to lifestyle choice - so could suggest any choice which would lead to drop in BP, e.g. stop smoking (1) as reduces tar build up in arteries (1); reduce alcohol intake; reducing weight if overweight/ not being overweight or reducing stress</i></p>	2x2	<b>(4)</b>

Question		Answer	Do not accept	Additional Guidance	Marks	Total
12	(b)	Any of: Cooper's 12 minute run 12 minute Cooper run Cooper(s) Cooper(s) run 12 min run Treadmill test Multi stage fitness test		Accept other relevant tests of cardiovascular fitness  Accept alternative recognised terminology for tests e.g bleep test/MSFT	1x1	(1)
12	(ci)	Recovery Recovery rate	Recovery time		1x1	(1)
12	(cii)	To measure his fitness To see if he is getting fitter/if his PEP/training is working To see if (resting) heart rate/it is getting lower/decreased	To see if its changed/improved  To see if he is improving/track progress  Responses linked to recovery heart rate rather than resting		1X1	(1)
12	(ciii)	Credit placement of heart rate values that gives line that slopes down to the right from 1 min to 3 mins  Insert images/thumbnails of acceptable responses	Line that drops below 40 bpm Line that remains above 120 at min 3.  Graphs that have only been 'plotted', i.e. no lines.	Drop in heart rate does not need to be uniform between min 1 and 3, just downward, any plateaus occurring after 2 min mark.	1x1	(1)
12	(d)	Any <b>two</b> from: 1. Increased breathing rate/ increased ventilation 2. Increased depth of breathing / heavy breathing 3. Increased tidal volume 4. Oxygen debt	Responses related to other body systems  Increased vital capacity		2x1	(2)

Question	Answer
13 E TA	A <b>discussion</b> of the application of the principles of training <b>to improve fitness</b> that makes reference to:
<p><b>Indicative content</b> To progress through the levels there needs to be evidence of the ability to write coherent discussion points that relate to the question. These points could take a variety of forms but should be linked and show progression of an argument/point <b><u>that links application of the principles of training to an increase in fitness.</u></b></p> <p>NB - Question asks how 'this' improves fitness therefore developed statements must link to fitness</p> <p><b>A - Identify principles of training with definition/description (example simple statements)</b></p> <ul style="list-style-type: none"> <li>• List of principles (no description)/acronyms, e.g. RIPS, SPORT, FITT (S)</li> <li>• Progressive overload – gradually increasing intensity of workload (S)</li> <li>• Specificity – focusing training on the needs of the activity/relevant area of fitness (S)</li> <li>• Individual differences/needs – personalised training plan (S) (accept personalisation in relation to age, gender, fitness levels, sport)</li> <li>• Rest and recovery – allowing time between training sessions for sufficient rest and for adaptations to take place (S)</li> <li>• FITT – represents frequency; intensity; time; type (S)</li> <li>• Frequency means how often you train (S)</li> <li>• Reversibility – means that if you decrease level of exercise your level of fitness will drop (S)</li> </ul> <p><b>B – Identify principles of training with examples (example simple statements) then linked to fitness (developed)</b></p> <ul style="list-style-type: none"> <li>• Progressive overload – starting at 5KG and increasing to 6KG once 5KG becomes too easy (S) in this way the muscles adapt to the new work loads increasing the strength of the student (D)</li> <li>• Specificity – the sprinters in the class use short rest intervals and work anaerobically compared to the long distance runners in the group (S) this would mean each type of performer was improving a relevant aspect of fitness for their activity (D)</li> <li>• Individual differences/needs – Jo lifts 15KG compared to Mike’s 25KG as she isn’t as strong as Mike (S) if she lifted as much as Mike before she had increased her fitness she would injure herself and lose fitness as not able to train (D)</li> <li>• Rest and recovery – have training sessions on alternate days (S) so that the body has time to replenish energy stores so it can train again and begin to adapt (D)</li> </ul> <p><b>C – Effectively applied:</b> (example developed statements where principles and their description linked to explanation of how they could be applied.)</p> <ul style="list-style-type: none"> <li>• Progressive overload – by increasing workload slightly minimises risk of injury (S) – therefore the body can continue to train without fear of needing to stop due to injury. (D)</li> </ul>	

- Progressive overload gradually increasing the intensity of workload (S) causing the body to adapt, increasing fitness (DS)
- If injured due to overuse through not applying progressive overload (S) means you have to reduce training therefore losing fitness through reversibility (D).
- FITT – represents frequency; intensity; time; type – if the class start with two exercise sessions a week and then increase this to three they will have increased frequency (S) of training therefore their bodies will adapt to the new level of training making them fitter. (D)

Level	Mark	Descriptor
<b>Level 0</b>	0	No rewardable material
<b>Level 1</b>	1-2	<p>i) A number of <b>simple statements</b> that comment on the principles of training E.g. Progressive overload - gradually increasing intensity of workload</p> <p>ii) A number of <b>simple statements</b> that give examples to describe the principles of training. E.g. Progressive overload - starting at 5KG and increasing to 6KG once 5KG becomes too easy</p> <p>Candidates will produce brief and narrative responses, making a limited number of simple statements, probably with limited reference to the question. Little knowledge and understanding of the range of requirements. Responses produced by candidates will be mostly generalised, and may not fully address the requirement of the question.</p> <p>Candidates' writing communicates ideas using everyday language, but lacks clarity and organisation. There will be frequent errors in candidates' spelling, grammar and punctuation.</p>
<b>Level 2</b>	3-4	<p>i) Developed statements, i.e. simple statements with description and example of principles of training that, if used effectively would improve fitness. E.g. Individual differences/needs - focusing training on needs of individual - Jo lifts 15KG compared to Mike's 25KG as she isn't as strong as Mike.</p> <p>ii) <b>Developed statements</b>, i.e. simple statements with explanation of how principle should be applied to bring about improvement in fitness.</p> <p>iii) Basic (but accurate) conclusion in line with previous points.</p> <p>Candidates' responses will be mostly accurate and include relevant factual material. Some knowledge and understanding of the application of the principles of training. Candidates will have addressed the requirement of the question to discuss the use of the principles of training to improve fitness with some success.</p> <p>Candidates' writing communicates ideas with accurate use of appropriate terminology, and the organisation of the response shows</p>

		some direction and control. There will be few errors in spelling, punctuation and grammar.
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Level	Mark	Descriptor
<b>Level 3</b>	5-6	<p>i) Developed statements (using relevant examples) <b>balanced</b> and <b>succinct</b>.</p> <p>ii) <b>Conclusion</b> provided based on points raised</p> <p>Candidates will offer factually accurate and sustained responses that relate well to the focus of the question and successfully addresses the discursive demands. Sound knowledge and understanding of the principles of training and their application. The discussion will be supported by accurate factual material that is relevant to the question. The majority of the specification principles of training will be fully discussed with appropriate conclusions reached.</p> <p>Candidates' writing communicates ideas effectively using appropriate terminology, and organises material clearly and coherently. Spelling, punctuation and grammar will be accurate throughout the response.</p>



Question	Answer
14 E TA	A <b>discussion</b> of the use of steroids to enhance performance in athletic events that makes reference to:
<b>Indicative content</b>	
<b>A - Reasons for (example simple statements - developed statements)</b>	
<ul style="list-style-type: none"> <li>• A shot putter may take steroids to increase muscle mass (S) allowing them to put the shot further as they can generate more power (accept other specific examples)</li> <li>• Can train harder/longer (S) get greater fitness adaptations</li> <li>• More suited to power events as adaptations more beneficial in these activities (S) for example an increase in muscle mass will mean that a discus thrower can throw the discus further (DS)</li> <li>• Can increase aggression (S) therefore mentally psyching performers up more especially in throwing events like the shot (DS)</li> <li>• Recovery time is decreased if injured (S) therefore able to return to training quicker so less chance to lose adaptations/more opportunity to improve fitness (DS)</li> <li>• Other people take them and don't get caught via drugs testing (S) therefore to compete with these people 'I' need to take them</li> <li>• <u>Increases</u> chances of winning (S) to give the fame and rewards that comes from winning (DS)</li> </ul>	
<b>B - Reasons against (example simple statements - developed statements)</b>	
<ul style="list-style-type: none"> <li>• List of side effects (2 or more) SS If list developed can award DS as shown below</li> <li>• Can lead to increased aggression/make aggressive (S) therefore lose focus or behave inappropriately causing a drop in performance (DS)</li> <li>• Lower sperm count reducing fertility/leading to infertility (S) therefore less chance of having children later in life (DS)</li> <li>• Can promote acne (S) therefore may impact self-esteem negatively</li> <li>• Can cause liver damage (S) therefore risking liver disease in later life</li> <li>• Will get banned/disqualified from competition (S) if drugs are found in body after random drugs testing (DS)</li> <li>• It is against the rules of the sporting competition (S)</li> <li>• Can reflect badly on the sport due to poor media coverage (S) resulting in lower participation rates</li> </ul>	
<b>C - Values:</b> (example simple statements - developed statements)	
<ul style="list-style-type: none"> <li>• It is considered cheating (therefore) if caught as a result of drugs testing you will be named and shamed and lose sponsorship/</li> <li>• It is against the ethos/spirit of sport (because) it is no longer a fair competition /level playing field/gives you an unfair advantage</li> </ul>	
<b>D - Conclusions:</b> (example developed statements <b>at end of response as summary/conclusion</b> . If no 'therefore', i.e. first part of statement only = simple statement)	
<ul style="list-style-type: none"> <li>• Advantages lead to development of power therefore more advantageous for</li> </ul>	

sprinters than endurance athletes.

- Whilst there are advantages which would encourage use, there are many ethical considerations and health risks therefore they should not be taken to enhance performance.

Level	Mark	Descriptor (Question 14)
<b>Level 0</b>	0	No rewardable material
<b>Level 1</b>	1-2	<p>(i) A number of <b>simple statements</b> that describe benefits and/or negatives of taking steroids. E.g. Can train harder, or can decrease sperm count.</p> <p>(ii) A number of <b>simple statements</b> that describe ethical considerations of taking steroids. E.g. it is considered cheating.</p> <p>Candidates will produce brief and narrative responses, making a limited number of simple statements, probably with limited reference to the question. Little knowledge and understanding of the range of requirements. Responses produced by candidates will be mostly generalised, and may not fully address the requirement of the question to discuss the use of steroids in athletic events.</p> <p>Candidates' writing communicates ideas using everyday language, but lacks clarity and organisation. There will be frequent errors in candidates' spelling, grammar and punctuation.</p>
<b>Level 2</b>	3-4	<p>(i) Developed statements, i.e. simple statements of benefits and/or disadvantages of taking steroids with explanation to develop point. E.g. Can train harder (therefore) get greater fitness adaptations OR Can lead to too much aggression (therefore) lose focus and performance dips.</p> <p>(ii) <b>Developed statements</b>, i.e. simple statements with explanation of ethics of taking steroids.</p> <p>(iii) Basic (but accurate) conclusion in line with previous points.</p> <p>Candidates' responses will be mostly accurate and include relevant factual material. Some knowledge and understanding of the ethics and effects of steroids use on health and performance. Candidates will have addressed the requirement of the question to discuss the use of steroids to enhance performance in athletic events.</p> <p>Candidates' writing communicates ideas with accurate use of appropriate terminology, and the organisation of the response shows some direction and control. There will be few errors in spelling, punctuation and grammar.</p>
<b>Level 3</b>	5-6	<p>i) Developed statements (using relevant examples) <b>balanced</b> and <b>succinct</b>.</p> <p>ii) <b>Conclusion</b> provided based on points raised</p> <p>Candidates will offer factually accurate and sustained responses that relate well to the focus of the question and successfully addresses the discursive demands. Sound knowledge and understanding of the ethics and effects of steroids use on health and performance. The discussion will be supported by accurate factual material that is relevant to the question. The majority of the effects will be fully discussed with</p>

		appropriate conclusions reached. Candidates' writing communicates ideas effectively using appropriate terminology, and organises material clearly and coherently. Spelling, punctuation and grammar will be accurate throughout the response.
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