

Cambridge Technicals Sport

Unit 2C: Physical preparation and readiness for sport and physical activity

Level 2 Cambridge Technical in Sport and Physical Activity
05885 - 05886

Mark Scheme for June 2023

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This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by examiners. It does not indicate the details of the discussions which took place at an examiners' meeting before marking commenced.

All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

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Question	Answer	Marks	Guidance															
1	<p>Four marks for four from:</p> <ul style="list-style-type: none"> • increased heart rate • increased cardiac output/increased blood flow to muscles • more oxygen goes to the muscles/more nutrients goes to muscles • blood pressure increases improving the flow of oxygen and nutrients to the working muscles. • vascular shunt mechanism/blood flow is directed away from inactive organs/blood flow directed to working muscles • breathing rate increases • respiratory muscles work harder increasing the volume of oxygen entering the - lungs 	4																
2	<p>Four marks for:</p> <table border="1"> <thead> <tr> <th>Purpose</th> <th>Warm Up</th> <th>Cool Down</th> </tr> </thead> <tbody> <tr> <td>Increase flexibility in joints and muscles</td> <td>X</td> <td></td> </tr> <tr> <td>Increase heart rate</td> <td>X</td> <td></td> </tr> <tr> <td>Increase speed of muscular contraction</td> <td>X</td> <td></td> </tr> <tr> <td>Prevent blood circulation from dropping too quickly</td> <td></td> <td>X</td> </tr> </tbody> </table>	Purpose	Warm Up	Cool Down	Increase flexibility in joints and muscles	X		Increase heart rate	X		Increase speed of muscular contraction	X		Prevent blood circulation from dropping too quickly		X	4	
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Increase flexibility in joints and muscles	X																	
Increase heart rate	X																	
Increase speed of muscular contraction	X																	
Prevent blood circulation from dropping too quickly		X																
3	<p>Two marks for:</p> <ul style="list-style-type: none"> • Lactic Acid • Carbon Dioxide/CO₂ 	2																

Question		Answer	Marks	Guidance
4		<p>Two marks for:</p> <ul style="list-style-type: none"> Utilises oxygen for energy Utilised during moderate intensity Utilised during long duration activity 	2	Accept mark if embedded within an example
5		<p>Four marks for four from:</p> <ul style="list-style-type: none"> (skeletal) bones get stronger/increase in size and density (impact) reduces the risk of osteoporosis/osteoarthritis (skeletal) increased synovial fluid/decreased viscosity (impact) increases the range of movement at the joint (or) (Impact) reduces the risk of osteoporosis/osteoarthritis (skeletal) cartilage grows thicker/ligaments can bear more load (Impact) reduced risk of injury (muscular) muscular hypertrophy/size of muscles increase (Impact) cope with additional stress/create more energy (muscular) muscular strength increases (Impact) improved ability to apply force 	4	<p>Must have impact on performance to achieve 4 marks</p> <p>Accept answer if embedded within an example</p> <p>Effect must be correct for related impact to be awarded</p> <p>Accept any relevant answer</p>
6	(a)	<p>Three marks for:</p> <p>During an exercise session there is an increase in synovial fluid in the joints, which increases the range of movement. The muscles also stretch. This improves the person's flexibility and mobility.</p> <p>Drop down options. flexibility oxygen power relax stretch synovial fluid</p>	3	

Question		Answer	Marks	Guidance
6	(b)	<p>One mark for:</p> <ul style="list-style-type: none"> • True 	1	
7*		<p>Indicative content:</p> <ol style="list-style-type: none"> 1. increases the volume of blood that can be pumped from the heart <ul style="list-style-type: none"> • increased stroke volume 2. increased cardiac output <ul style="list-style-type: none"> • allowing more oxygen to be diffused into the blood 3. more waste products to be removed from the body 4. improves the efficiency of gaseous exchange <ul style="list-style-type: none"> • creates a steeper diffusion gradient 5. more oxygen will go to the working muscles 6. Performance will be improved <ul style="list-style-type: none"> • will be able to run for longer • run a faster time • delay fatigue until later in the race 	6	<p>MB3 – 5-6 marks</p> <ul style="list-style-type: none"> • Answer offers clear explanations of the cardiac benefits and considers all/most of the factors. • Answer is developed and links to performance are evident • Quality of written communication show few errors in grammar, punctuation and spelling <p>MB2 – 3-4 marks</p> <ul style="list-style-type: none"> • Answer offers some explanation of cardiac benefits with some factors taken into consideration • An attempt to develop the answer and some links to performance is evident • Quality of written communication show occasional errors in grammar, punctuation and spelling <p>MB1 – 1-2 marks</p> <ul style="list-style-type: none"> • Answer offers suggestions of cardiac benefits but gives little or no justification • No attempt to link to performance • Quality of written communication show errors in grammar, punctuation and spelling may be noticeable and intrusive

Question		Answer	Marks	Guidance
8		<p>Three marks for three from:</p> <ul style="list-style-type: none"> • She will develop teamwork skills through being part of a team • She will improve her communication skills when asking for the ball • She will develop leadership skills through working with others (e.g. being a captain) • She will develop empathy/understanding for others by playing with different teammates/people • She will develop an improved self-esteem/self-confidence from being part of a team (e.g. doing well and winning matches) • She will make friends through having something in common and trying to achieve together • She will learn to respect others such as officials, coaches, opposition players • She will learn about how people take on different roles within a team 	5	<p>Accept answer if embedded within an example</p> <p>Accept any relevant answer</p>
9	(a)	<p>Three marks for three from:</p> <ul style="list-style-type: none"> • Prevent illness • Injury rehabilitation • Improve mood • Improve mental health conditions • Improve sleep • Improve medical conditions (e.g. asthma, diabetes, high blood pressure/heart conditions) 	3	Accept any relevant identification if within an example
	(b)	<p>Two marks for two from:</p> <ul style="list-style-type: none"> • Simplify rules (e.g) can dribble with two hands • Use a smaller ball so that it is easier to handle • Change the height of the basket/use a target on the wall • Use a smaller court • Shorter match time • Make games more fun 	2	<p>Accept answer if embedded within an example</p> <p>Accept any relevant answer which is related specifically to basket ball</p>

Question		Answer	Marks	Guidance
10		<p>Four marks for:</p> <ul style="list-style-type: none">• Rest – the part of the body that is injured to prevent further damage/immobilise the injured part• Ice – put ice on the affected area to reduce swelling/help to relieve pain• Compress – cover with a bandage/strap the injured area to prevent/control swelling/to stop bleeding/help clotting mechanism• Elevate – keep the injury up (above the heart)/reduce blood flow to affected area/relieve pain/control swelling	4	Must have explanation to be awarded the mark not just correct identification of the acronym

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