

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 2022

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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	(a)	One mark for: <ul style="list-style-type: none">aerobic	1	
	(b)	Two marks for two from: <ul style="list-style-type: none">Uses oxygen for energy because of the extended time that they are running and therefore need to breatheUsed during moderate intensity activities and the marathon is a low intensity/steady state activityUsed during long duration activities and the marathon is long duration/distanceGlycogen in muscles used as an energy sourceAnaerobic energy system does not produce the energy because it would run out too quickly	2	Accept answer if embedded within the example Accept any relevant answer Do not accept air for oxygen

Question		Answer	Marks	Guidance	
	(c)*	<p>Indicative Content:</p> <ol style="list-style-type: none"> an increase in strength and size of the cardiac muscle/cardiac hypertrophy <ul style="list-style-type: none"> increases the volume of blood that can be pumped by the heart to working muscles increased stroke volume (resting/exercising) increased maximum cardiac output. the number of red blood cells in the blood increases <ul style="list-style-type: none"> allowing more oxygen to be transported around the body an increased number of capillaries in the muscles <ul style="list-style-type: none"> allows more blood to reach working muscles the increased size and strength of the respiratory muscles <ul style="list-style-type: none"> increases respiratory volumes, allowing more oxygen to be diffused into the blood allow more carbon dioxide to be removed increased number of alveoli <ul style="list-style-type: none"> improves the efficiency of gaseous exchange impact on completion of marathon race <ul style="list-style-type: none"> help her withstand fatigue able to run at a higher intensity for longer able to complete the race 	6	<p>MB3 – 5-6 marks</p> <ul style="list-style-type: none"> Answer offers suitable suggestion of long term cardiorespiratory effects with full justification and considers all/most of the factors. 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 suitable suggestion of long term cardiorespiratory effects with justification but may not take all factors into consideration. 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 long term cardiorespiratory effects but gives little or no justification. Answer may not take into consideration all of the factors. Quality of written communication show errors in grammar, punctuation and spelling may be noticeable and intrusive. 	
2	(a)	(i)	<p>One mark for:</p> <ul style="list-style-type: none"> False 	1	
	(a)	(ii)	<p>One mark for:</p> <ul style="list-style-type: none"> True 	1	
	(b)		<p>One mark for:</p> <ul style="list-style-type: none"> Rugby Ice Hockey Football 	1	<p>Accept answer if embedded within an example</p> <p>Accept any relevant answer</p>

Question		Answer	Marks	Guidance		
3		Five marks for:	5			
		Short term effect			Musculoskeletal	Cardiorespiratory
		Blood pressure increases				X
		Increase in cardiac output				X
		Increase in synovial fluid production			X	
		Lactic acid build up			X	
Tendons stretch	X					
4		Three marks for: Improved metabolic rate helps to control weight , which helps in preventing conditions such as type 2 diabetes .	3			
5		Two marks for two from: <ul style="list-style-type: none"> • supports independent living • enables her to do everyday tasks • helps her maintain an active lifestyle • reduce risk of health problems (eg arthritis, osteoporosis, soft tissue injury) 	2	Accept answer if embedded within an example Accept any relevant answer		

Question	Answer	Marks	Guidance
6	<p>Five marks for five from:</p> <ul style="list-style-type: none"> • reduce risk of injury • prepare for physical activity, mental preparation, skill rehearsal • increase body temperature to start thermoregulation • increase heart rate to pump more blood around the body, to deliver more oxygen to the working muscles • increase flexibility in muscles and joints, to increase the range of movement • increase speed of muscle contraction so it can generate more force/contract stronger 	5	<p>Accept any relevant answer appropriate to that factor Accept if embedded within an example</p>
7	<p>Three marks for three from:</p> <ul style="list-style-type: none"> • see friends/meet new friends/socialise • improves mental health, reduce stress • allows him to take his mind off his work/think of something different than work/distraction • do activity away from the workplace • recharge batteries • improve sleep patterns • physical benefits, keeping fit etc • health benefits, reduce risk of disease, obesity etc 	3	<p>Accept answer if embedded within an example Accept any relevant answer</p>

Question	Answer	Marks	Guidance
8	<p>Three marks for three from:</p> <ul style="list-style-type: none"> • Increased strength of her muscles, through conditioning when performing moves that require holding her bodyweight • Increased strength of her bones, through impact when landing from a vault • Increased flexibility, through gymnastic specific mobility training exercise • Improved function of the heart, through participating in a floor routine • Improved function of the lungs, increase in size through participating in training sessions 	3	<p>Accept any relevant answer appropriate to that factor Accept if embedded within an example</p>
9	<p>Three marks for three from:</p> <ul style="list-style-type: none"> • Mountain/fell walking • Mountain biking • Canoeing • Climbing 	3	Accept any relevant answer
10	<p>Four marks for:</p> <ul style="list-style-type: none"> • Rest • Ice • Compress/Compression • Elevate/Elevation 	4	

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