



Mark Scheme (Results)

August 2013

NQF BTEC Level 1/Level 2 Firsts in
Sport

Unit 1: Fitness for Sport and Exercise
(20586E_01)

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Question Number	Answer	Mark
1	Aerobic endurance	(1)

Question Number	Answer	Mark
2(a)	Plyometrics	(1)
2(b)	Basketball player	(1)

Question Number	Answer	Mark
3	Picture A - free weights training Picture B - circuit training 1 mark for each correct answer.	(2)

Question Number	Answer	Mark
	As a candidate is not directed to which box to write their answer for each type of flexibility training, accept the answers shown below in either box.	
4.	Active stretching Accept: - static active stretching - active static - active Do not accept just 'static' or 'static stretching'	(1)
4.	Ballistic stretching Accept Ballistic Accept any answers that are phonetically spelt	(1)

Question Number	Answer	Mark
5	Answer	Definition
	Body Composition	is measured using height and weight.
	Muscular endurance	is measured by counting the number of repetitions that can be completed in one minute.
	1 mark for each correct answer.	(2)

Question Number	Answer	Mark
6	<p>Candidates have to use the exact terminology for the FITT principles with no additional wording</p> <p>Frequency (first box)</p> <p>Intensity or type (second box)</p> <p>1 mark for each correct answer.</p> <p>Accept any other appropriate phonetic spellings.</p>	(2)

Question Number	Answer	Mark
7(a)	<p>Grip dynamometer</p> <p>Accept hand grip dynamometer/ dynamometer</p> <p>Accept any other appropriate phonetic spellings.</p>	(1)
7(b)	<p>Strength</p> <p>Accept muscular strength</p>	(1)
7(c)	<p>Accept any one of the following:</p> <p>Hand/wrist/forearm/lower arm/fingers</p>	(1)
7(d)	KgW	(1)

Question Number	Answer	Mark
8(a)	220 - Age	(1)
8(b)	60-85 60-85% 60-85% of HR max 60-85% of maximal heart rate Do not accept any other numbers.	(1)

Question Number	Answer	Mark
9(a)	Vertical jump test	(1)
9(b)	Anaerobic power	(1)

Question Number	Answer	Mark
10(a)	Gymnastics	(1)
10(b)	PNF stretching	(1)

Question Number	Answer	Mark
11	<p>Award 1 mark for identification of why the method of sprint training is appropriate</p> <p>And award 1 mark for explanation of why hollow sprint or acceleration sprint training are required for football performance</p> <p>for a maximum of 4 marks</p> <p>For example:</p> <p>Acceleration sprints</p> <p>Acceleration sprints training are where a person gradually increases speed from a moving start (1) this is appropriate because in a game of football a striker would be running up to the ball/receiving a through-ball/intercepting a pass/has received a pass and is sprinting with the ball towards the goal (1).</p> <p>Hollow sprints</p> <p>Hollow sprints training has a recovery period/is from a standing start and then they sprint as fast as they can (1) this is appropriate because it can improve the</p>	(4)

	<p>footballers speed off the mark when the goalkeeper is standing in the net then has to sprint out of his goal to collect the ball (1).</p> <p>Accept any other relevant wording/phrasing.</p>	
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Question Number	Answer	Mark
12	50 - 60 % 1 RM and 20 reps	(1)

Question Number	Answer	Mark
13	<p>Award 1 mark for identification of why the component of fitness is required and an additional mark for appropriate expansion that is specific to gymnastics.</p> <p>Specific gymnastic terminology is not required to attain the second mark, however, the response has to be related to an aspect of gymnastics such as components or elements of a floor routine for example may be referred to.</p> <p>Up to 2 marks available for responses related to balance and up to 2 marks available for responses related to power, for a maximum of 4 marks.</p> <p>For example:</p> <p>Balance is important for gymnasts performing on the floor because they perform movements that change the centre of mass over the base of support (1). Having good balance is required so that the gymnast is in the correct position and is able to perform complex movements (e.g. handstands). (1)</p> <p>Power is important for a gymnast on the floor so that they can generate sufficient height (1) this power is required so that the gymnast can have enough time in the air to perform the complex techniques/movements whilst they are in the air e.g. somersault before they land (1).</p> <p>Accept any other relevant wording/phrasing.</p>	(4)

Question Number	Answer	Mark
14(a)	<p>Award up to 1 mark for showing correct process of working out the answer but incorrect final answer.</p> <p>Working out</p> <p>24 x 4</p> <p>24+24+24+24</p> <p>48+48</p> <p>Award 2 marks for correct answer.</p> <p>96 beats per minute</p> <p>96 bpm</p> <p>96</p>	(2)
14(b)	<p>Award 1 mark for description of the disadvantage and 1 additional mark for appropriate expansion related to the disadvantage</p> <p>e.g.</p> <p>The forestry step test is only predictive (1) because it is only done for 5 minutes and is not a maximal test (1).</p> <p>It is not specific to any sport (1) and is therefore not an accurate reflection of their true aerobic endurance (1).</p> <p>Accept any other relevant wording/phrasing.</p>	(2)

Question Number	Answer	Mark
15	<p>Award 1 mark for explanation of fitness training method and an additional mark for appropriate expansion that explains why the training method would improve aerobic endurance.</p> <p>Up to 2 marks available for the explanation of each fitness training method for a maximum of 4 marks.</p> <p>Continuous training - an example of this is jogging non-stop at a steady pace and moderate intensity for a minimum of 30 minutes (1) this trains for aerobic endurance as the cardio respiratory system is challenged which improves aerobic endurance by increasing VO2 max (1)</p> <p>Fartlek training - an example of this would be running non-stop cross country over hilly terrain as the type of training has to involve changes of pace and going up a</p>	(4)

	<p>hill would slow down the persons pace then going down the hill would increase their pace (1) this trains the cardio respiratory system by working at high intensities and then having a recovery period followed by different intensities (1).</p> <p>Interval training - an example of this would be jogging around an athletics track for 800m then having a rest period where the individual walks for 200m followed by more jogging and more rest periods (1) this improves aerobic endurance by working the muscles at high intensities which are then followed by a recovery period which then allows the person to train at a high intensity again. (1)</p> <p>Circuit training - an example of this would be an aerobic circuit training session where the person performs an exercise for a short period of time and then rests for a short period of time before moving on to the next exercise station in the circuit (1) This improves aerobic endurance by working the muscles/lungs in a variety of ways at different intensities as different stations stress the cardio respiratory system/muscles in different ways (1)</p> <p>Accept any other relevant wording/phrasing.</p>	
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Question Number	Answer	Mark
16	Stopwatch Tape measure 1 mark for each correct response.	(2)

Question Number	Answer	Mark
17	Award 1 mark for explanation of why the test is not valid and 1 additional mark for appropriate expansion that is related to the first point. The one-minute sit-up test is measuring muscular endurance not muscular strength (1) because the sit up test involves repeated muscular contractions (1) Accept any other relevant wording/phrasing.	(2)

Question Number	Indicative content	Mark
18	<p>N.B This question was intended to be an evaluation question. Candidates have not demonstrated evaluation in their responses and as a result, marks are being awarded inline with a levels-based mark scheme targeted at ‘discuss’.</p> <p>Possible key points/viewpoints include:</p> <ul style="list-style-type: none"> • Fitness test results E.g. interpretation of the results provided which demonstrate improvement of component of fitness. • Relationship between components of fitness and long-distance running E.g. Increased levels of flexibility can help to reduce the risk of injury through muscle tears/tendon strains/ligament sprains which could happen during the 10 k run if he was to over-stretch during the run/ climbing over styles etc as it is a cross country run. Increased VO₂ max is very important as the 10 k run is an aerobic endurance event so is directly linked to the ability of the cardiovascular system to take up and deliver oxygen to the working muscles to allow Daniel to keep running for a long time. Reduced BMI would suggest that there is a reduction in his body fat which would mean he is carrying less weight improving his running performance as it takes less energy to move lighter loads. • Relationship between training programme and results of fitness tests E.g. <ul style="list-style-type: none"> ➤ Flexibility has increased because Daniel has taken part in stretching classes which is an activity that increases flexibility. ➤ VO₂ max has increased because Daniel has taken part in regular swimming which is an activity that increases aerobic endurance. ➤ Daniel’s BMI has reduced this demonstrates that Daniel’s body composition has changed. This is a positive change due to the fact he has been taking part in physical activities. 	(8)

	<ul style="list-style-type: none"> • Relationship between training programme and performance in long-distance running. <p>E.g.</p> <ul style="list-style-type: none"> ➤ The training programme has no specific training as there is no running in the programme which is required for the event which is a 10 k run which is a significant flaw in the training programme. ➤ The training programme has increased aerobic fitness which is a requirement for long distance running but the fitness would be specific to aerobic classes and swimming and not running. <p>Example response:</p> <p>Even though the programme has produced more areas of improvement than not, this programme has not been as effective as it could have been for a 10 k cross country runner due to lack of specificity. Training should be specific to running e.g. continuous running training lasting at least 50 minutes or covering just under the 10 k distance so that Daniel is ready and his body has adapted to the training to enable him to complete the 10 k distance.</p> <p>Accept any other valid response.</p>	
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Level	Descriptor
0 0 marks	No rewardable material
1 1-3 marks	A few key points identified, or one point described in some detail. The answer is likely to be in the form of a list. Only one viewpoint considered. Points made will be superficial/generic and not applied/directly linked to the situation in the question.
2 4-6 marks	Some points identified, or a few key points described. Consideration of more than one viewpoint but there will be more emphasis on one of them. The answer is unbalanced. Most points made will be relevant to the situation in the question, but the link will not always be clear.
3 7-8 marks	Range of points described, or a few key points explained in depth. All sides of the case are considered and the answer is well-balanced, giving weight to all viewpoints. The majority of points made will be relevant and there will be a clear link to the situation in the question.

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