



Mark Scheme

May 2016

BTEC Level 1/Level 2 First Award

Sport 20586\_E09

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## General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Accept phonetic spelling
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- All marks on the mark scheme should be used appropriately.
- All marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if a candidate's response is not worthy of credit according to the mark scheme.
- Where some judgment is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt about applying the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed-out work should be marked UNLESS the candidate has replaced it with an alternative response.
- Always accept phonetic spelling

| Question Number | Answer  | Mark |
|-----------------|---------|------|
| 1               | Balance | (1)  |

| Question Number | Answer              | Mark |
|-----------------|---------------------|------|
| 2(a)            | Continuous training | (1)  |
| 2(b)            | Marathon runner     | (1)  |

| Question Number | Answer               | Mark |
|-----------------|----------------------|------|
| 3(a)            | Plyometric training  | (1)  |
| 3(b)            | Flexibility training | (1)  |

| Question Number | Answer  | Mark |
|-----------------|---|------|
| 4               | Type 1 - Hollow (Sprint) or interval (training) | (1)  |
| 4               | Type 2 - Acceleration (Sprint)                  | (1)  |

| Question Number                | Answer  | Mark |
|--------------------------------|---|------|
| 5                              | <b>Answer</b>   |      |
|                                | <b>Definition</b>   |      |
|                                | VO <sub>2</sub> max   |      |
| BIA                            | is a measure of a person's maximum amount of oxygen uptake      |      |
|                                | Is used for the prediction of a person's percentage of body fat |      |
| 1 mark for each correct answer |   | (2)  |

| Question Number   | Answer   | Mark         |
|---|--|--------------|
| 6   | <b>Statement</b>   |              |
|   | <b>Additional principle of training</b>                              |              |
|   | I will have one day a week when I will not take part in any training |              |
| I will gradually increase the number of miles I cycle each week | Rest and/or recovery (1)   |              |
|   | Progressive Overload (1)   |              |
|   |  | Overload (1) |
|   |  | (2)          |

| Question Number | Answer                             | Mark |
|-----------------|------------------------------------|------|
| 7(a)            | Skin fold calliper/calliper(s) (1) | (1)  |
| 7(b)            | Body composition                   | (1)  |
| 7(c)            | Thigh                              | (1)  |
| 7(d)            | Age                                | (1)  |

| Question Number | Answer   | Mark |
|-----------------|--|------|
| 8(a)            | Intensity (1)  | (1)  |
| 8(b)            | Training effects are reversed/lose fitness (1)<br><br><b>Accept other appropriate answers.</b> | (1)  |

| Question Number | Answer                 | Mark |
|-----------------|------------------------|------|
| 9(a)            | Forestry step test (1) | (1)  |
| 9(b)            | Aerobic endurance (1)  | (1)  |

| Question Number | Answer                 | Mark |
|-----------------|------------------------|------|
| 10(a)           | Shot put               | (1)  |
| 10(b)           | Low reps and high load | (1)  |

| Question Number | Answer  | Mark |
|-----------------|---|------|
| 11(a)           | <p>1 mark for identification of component of fitness being trained and 1 mark for associated expansion.</p> <p>Aerobic endurance (1) as the stations all include exercises that train the cardio respiratory system (1)</p> <p>Muscular endurance is being trained (1) /exercises that require moderate intensity repeated contraction of the muscles (1)</p> <p>Accept cardiovascular (CV) fitness/endurance, aerobic fitness/endurance</p> <p>Do not accept the exercises are aerobic exercises</p> <p><b>Accept other appropriate answers.</b></p> | (2)  |
| 11(b)           | <p>1 mark for identification of adaptation of circuit stations and 1 mark for associated expansion</p> <p>Resistance based exercises using heavy weights (1) as this will produce overload (1)</p> <p><b>Accept other appropriate answers.</b></p>  | (2)  |

| Question Number | Answer       | Mark |
|-----------------|--------------|------|
| 12              | Coordination | (1)  |

| Question Number | Answer  | Mark |
|-----------------|---|------|
| 13(a)           | <p>1 mark for identification of how power can be used in 100m and 1 mark for associated expansion.</p> <p>Power will enable the sprinter to push off/generate maximum force from the blocks (1) so that they start the race at the fastest possible pace/can get a good start (1)</p> <p>Power will enable the sprinter to generate force as they push off the track (1) so they can produce maximum speed/acceleration (1)</p> <p><b>Accept other appropriate answers.</b></p> | (2)  |
| 13(b)           | <p>1 mark for identification of how reaction time is used in 100m and 1 mark for associated expansion.</p> <p>Reaction time is important so the sprinter can react to a stimulus to start the race/starters pistol (1) so they are quicker off the blocks/reduce the race time/get a quick start (1)</p> <p><b>Accept other appropriate answers.</b></p>  | (2)  |

| Question Number | Answer  | Mark |
|-----------------|---|------|
| 14(a)           | <p>1 mark for correct working out shown in working out box <b>or</b> answer box.</p> <p><math>90/100 \times 70</math></p> <p>or</p> <p><math>70/100 \times 90</math></p> <p>or</p> <p><math>70 \times 0.9</math> in working out box (1)</p> <p>Maximum of 2 marks for this question if the correct answer is provided</p> <p>63 kg or 63 (2)</p> <p>No units required to award full 2 marks</p> | (2)  |
| 14(b)           | <p>1 mark for identification and 1 mark for associated expansion</p> <p>Making sure you use the right weight/a weight that is not too heavy (1) to prevent injury (1)</p> <p>Make sure the correct technique/sufficient space is used (1) to prevent injury (1)</p> <p>Athlete must warm-up / cool down (1) to prevent injury (1)</p>   | (2)  |

| Question Number | Answer  | Mark |
|-----------------|---|------|
| 15(a)           | <p>One mark for identification of why PNF is appropriate and 1 mark for related expansion.</p> <p>It's a controlled/passive stretch (1) and therefore is less likely to cause injury (1).</p> <p>It is a good method of stretching for beginners/people with low levels of flexibility (1) because it will improve their flex</p> <p>ibility more quickly than other flexibility training methods (1)</p> <p><b>Accept other appropriate answers.</b></p>   | (2)  |
| 15(b)           | <p>One mark for identification of why ballistic stretching is not appropriate and 1 mark for related expansion.</p> <p>The type of movements in ballistic stretching involve bouncing/jerky movements (1) and therefore can cause muscle injury (1)</p> <p>Ballistic stretching should only be used by people with high levels of flexibility/should not be used for people new to sport/low flexibility levels (1) because there is greater risk of injury through this method (1)</p> <p><b>Accept other appropriate answers.</b></p> | (2)  |

| Question Number | Answer                                       | Mark |
|-----------------|--|------|
| 16              | <p>Tape measure (1)</p> <p>Stopwatch (1)</p> | (2)  |

| Question Number | Answer   | Mark |
|-----------------|--|------|
| 17              | <p>1 mark for explanation of why inaccurate body composition category and 1 further mark for related expansion.</p> <p>BMI test does not differentiate between muscle and body fat (1) therefore a person with a lot of muscle will weigh more (and would be categorised as obese) (1)</p> | (2)  |

|  |  |  |
|--|--|--|
|  | <p>Muscle weighs relatively more than fat (1) because James has a lot of muscle he would be categorised as obese (1)</p> <p><b>Accept other appropriate answers.</b></p> |  |
|--|--|--|

| Question Number | Indicative content   |
|-----------------|--|
| 18              | <p>Indicative content</p> <p>Discussion of what the FITT principles mean and how they can be applied to a training programme that is specific for a 400 m race.</p> <p>Frequency</p> <ul style="list-style-type: none"> <li>• He should train more than twice a week as this is not enough to produce progressive overload.</li> <li>• He should aim to train around 5 to 6 times per week for his body to adapt to improve his running.</li> <li>• He should also ensure he has one rest day a week to give his body time to recover and adapt to the training.</li> </ul> <p>Intensity</p> <ul style="list-style-type: none"> <li>• He needs to train at an intensity to produce overload so that his body will adapt.</li> <li>• He should be training at a high level on the Borg scale such as 15 or higher.</li> <li>• Calculations related to working out the maximum heart rate and training zone for this person can also be included in the response <math>220-18 = 202</math> Max HR</li> <li>• Discussion of intensity of interval training – high work intensity for short periods and long recovery periods.</li> </ul> <p>Time</p> <ul style="list-style-type: none"> <li>• 30 minutes for a training session is appropriate initially to produce overload</li> <li>• As Ewan's fitness level increases time will have to be extended up to approximately one hour in order to gain the desired training effect.</li> </ul> <p>Type</p> <ul style="list-style-type: none"> <li>• The training needs to be specific to the sport so therefore it should include lots of short distance running.</li> <li>• Can include responses related to fartlek training so the person can increase their speed in the race.</li> <li>• The event also requires some sprinting so resistance sprints and hollow sprints and acceleration sprints can also be incorporated into the training programme.</li> <li>• Interval training – work period followed by rest period to develop speed.</li> <li>• Plyometrics in order to develop power and leg strength for 400 meter running.</li> <li>• Flexibility training – any type of flexibility training can be discussed in order to decrease risk of injury.</li> </ul> |

| <b>Accept any other appropriate answers</b> |   |       |
|---|---|-------|
| Level                                       | Descriptor  | Mark  |
| Level 0                                     | No material worthy of credit  | 0     |
| Level 1                                     | A few principles are identified or identification of characteristics of the FITT principles without application. The answer is likely to be in the form of a list. Points made will be superficial/generic and not applied/directly linked to context in the question.  | (1-3) |
| Level 2                                     | Some principles are described in relation to the fitness training programme in the question.<br><br>The answer is unbalanced. Most points made will be relevant to the fitness training programme in the question.<br><br>Some FITT applications to a training programme are explored but not in any great detail, and not always specifically related to 400m running. | (4-6) |
| Level 3                                     | Each of the FITT principles are explained in relation to the fitness training programme in the question and specifically applied to performance in 400m running<br>The majority of points made will be relevant and there will be a clear link to the training programme requirements in the question.<br>The answer is balanced across all of the FITT principles.     | (7-8) |

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