

Cambridge Technicals Sport

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

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

Mark Scheme for January 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">Anaerobic | 1 | |
| | (b) | Two marks for two from: <ul style="list-style-type: none">Does not use oxygen for energy because they do not breathe in the raceUsed during high intensity activities and the 100m is high intensityUsed during short duration activities and the 100m is shortGlycogen in muscles used as an energy sourceNot enough time to produce energy from aerobic energy system | 2 | Accept answer if embedded within the example Accept any relevant answer |

| Question | | Answer | Marks | Guidance |
|----------|------|--|-------|--|
| | (c)* | <p>Indicative Content:</p> <ol style="list-style-type: none"> Increase of synovial fluid in the joints <ul style="list-style-type: none"> increases range of movement increasing the stride length Muscles temperature increases <ul style="list-style-type: none"> muscles stretch more improving flexibility improved mobility reduces the risk of a pulled muscle Tendons stretch <ul style="list-style-type: none"> improving flexibility reducing the risk of injury increasing power that can be generated by the muscle pulling All effects will help to run a faster time | 6 | <p>MB3 – 5-6 marks</p> <ul style="list-style-type: none"> Answer offers suitable suggestion 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 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 activities 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) | <p>One mark for:</p> <ul style="list-style-type: none"> False | 1 | |
| | (b) | <p>One mark for:</p> <ul style="list-style-type: none"> Hamstring stretch Quadriceps stretch Gastrocnemius/calf stretch Groin stretch | 1 | <ul style="list-style-type: none"> Accept any other suitable stretch (e.g. lunges) |
| | (c) | <p>One mark for:</p> <ul style="list-style-type: none"> It keeps it under control/regulates it/keeps it in a healthy range. | 1 | |

| Question | | Answer | Marks | Guidance | | | | | | | | | | | | | | | | | | |
|----------|--|--|---------------------------------|-----------------|-------------------|-------------------------|---|--|-----------------------------|---|--|---------------------------------|--|---|---------------------------|--|---|------------------------|---|--|---|--|
| 3 | | <p>Five marks for:</p> <table border="1"> <thead> <tr> <th>Long term Effect</th> <th>Musculoskeletal</th> <th>Cardiorespiratory</th> </tr> </thead> <tbody> <tr> <td>Cartilage grows thicker</td> <td>x</td> <td></td> </tr> <tr> <td>Muscles produce more energy</td> <td>x</td> <td></td> </tr> <tr> <td>Increased number of capillaries</td> <td></td> <td>x</td> </tr> <tr> <td>Increased volume of blood</td> <td></td> <td>x</td> </tr> <tr> <td>Increased bone density</td> <td>x</td> <td></td> </tr> </tbody> </table> | Long term Effect | Musculoskeletal | Cardiorespiratory | Cartilage grows thicker | x | | Muscles produce more energy | x | | Increased number of capillaries | | x | Increased volume of blood | | x | Increased bone density | x | | 5 | |
| | | | Long term Effect | Musculoskeletal | Cardiorespiratory | | | | | | | | | | | | | | | | | |
| | | | Cartilage grows thicker | x | | | | | | | | | | | | | | | | | | |
| | | | Muscles produce more energy | x | | | | | | | | | | | | | | | | | | |
| | | | Increased number of capillaries | | x | | | | | | | | | | | | | | | | | |
| | | | Increased volume of blood | | x | | | | | | | | | | | | | | | | | |
| | | | Increased bone density | x | | | | | | | | | | | | | | | | | | |
| 4 | | <p>Three marks for: The increase of synovial fluid in joints means a decrease in its viscosity over time, improving the range of movement at the joint and reduces the risk of osteoarthritis.</p> | 3 | | | | | | | | | | | | | | | | | | | |

| Question | Answer | Marks | Guidance |
|----------|---|-------|--|
| 5 | <p>Two marks for two from:</p> <ul style="list-style-type: none"> • More efficient gas exchange, to provide energy for the game • More oxygen transferred to blood • Quicker transfer of oxygen to blood • Deliver more oxygen to the working muscles, to keep going in a rally • Remove more waste products (CO₂) • More CO₂ transferred to lungs • Quicker transfer of CO₂ of to blood • Fatigue is delayed and he can still play at a high intensity in later sets/games • Quicker recovery | 2 | <p>Accept answer if embedded within an example</p> <p>Accept any relevant answer</p> |
| 6 | <p>Five marks for:</p> <ol style="list-style-type: none"> 1. Cool down 2. Warm up 3. Warm up 4. Cool down 5. Cool down | 5 | |
| 7 | <p>Six marks for six from:</p> <ul style="list-style-type: none"> • Enjoyment • Experience the natural environment • Break from work and the office/work life balance • Stress relief • Support healthy physical development • Opportunity to meet new people • Generate a sense of achievement/opportunity to conquer fears • Improve mental health/wellbeing • Control body weight/improve fitness levels | 6 | <p>Accept answer if embedded within an example</p> <p>Accept any relevant answer</p> |

| Question | | Answer | Marks | Guidance |
|----------|-----|--|-------|--|
| 8 | | <p>Two marks for two from:</p> <ul style="list-style-type: none"> • Football/ walking football • Rugby/ wheel chair rugby • Martial Arts • Basketball • Hockey | 3 | Accept any relevant answer |
| 9 | (a) | <p>Two marks for two from:</p> <ul style="list-style-type: none"> • Participant preparation (e.g. warm up/cool down/fitness levels) • Individual factors (e.g. gender/age) • Psychological factors (e.g. levels of aggression, motivation, anxiety) • Posture | 2 | <p>Accept any relevant answer appropriate to that factor</p> <p>Accept if embedded within an example</p> |
| | (b) | <p>Two marks for:</p> <ul style="list-style-type: none"> • See • Ask | 2 | |

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