

Mark Scheme (Final)

June 2019

Pearson BTEC Level 1/Level 2 Tech Award
– Sport, Activity and Fitness

Component 2: The Principles of Training,
Nutrition and Psychology for Sport and Activity
(21217L)

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– June 2019

General marking guidance

- All learners must receive the same treatment. Examiners must mark the first learner in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Learners must be rewarded for what they have shown they can do rather than be 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 learner's response is not worthy of credit, according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a learner's response, the team leader must be consulted.
- Crossed-out work should be marked UNLESS the learner has replaced it with an alternative response.

Specific marking guidance

- The marking grids have been designed to assess learners' work holistically. Rows in the grids identify the assessment focus/outcome being targeted. When using a marking grid, the 'best fit' approach should be used.
- Examiners should first make a holistic judgement on which band most closely matches the learner's response and place it within that band. Learners will be placed in the band that best describes their answer.
- The mark awarded within the band will be decided based on the quality of the answer, in response to the assessment focus/outcome, and will be modified according to how securely all bullet points are displayed at that band.
- Marks will be awarded towards the top or bottom of that band, depending on how they have evidenced each of the descriptor bullet points.

Question number	Answer	Mark
1 (a)	Award 1 mark for: <ul style="list-style-type: none"> • Flexibility (1) 	(1)

Question number	Answer	Mark
1 (b)	Award 1 mark for naming an appropriate method of training, up to a maximum of 1 mark. <ul style="list-style-type: none"> • Dynamic stretching (1) • Proprioceptive neuromuscular facilitation (PNF) (1) Accept any other appropriate answer.	(1)

Question number	Answer	Mark
2 (a)	Award 1 mark for: <ul style="list-style-type: none"> • Ibrahim (1) 	(1)

Question number	Answer	Mark
2 (b)	Award 1 mark for: <ul style="list-style-type: none"> • Good (1) 	(1)

Question number	Answer	Mark
2 (c) (i)	Award 1 mark for: <ul style="list-style-type: none"> • Muscular endurance (1) 	(1)

Question number	Answer	Mark
2 (c) (ii)	Award 1 for giving a reason related to performance in rowing. <ul style="list-style-type: none"> • This allows a rower to <u>repeatedly/continuously</u> pull on the oar (1) • This allows a rower to row for the duration of the race without fatigue (1). Accept any other appropriate answer.	(1)

Question number	Answer	Mark
2 (d)	<p>Award 1 mark for identifying an appropriate outcome of working with a training partner of similar ability, and a further 1 mark for an explanation of how this can lead to increased self-confidence, up to a maximum of 2 marks.</p> <ul style="list-style-type: none"> • Both will have the same strengths and weaknesses/make the same mistakes/learn together (1) therefore making Chloe feel less self-conscious, improving her self-confidence (1). • Chloe is able to match the performance of her partner (1) allowing opportunities to experience success / win, increasing self confidence (1) • Seeing somebody similar to herself improving (1) gives Chloe increased belief that she can achieve success, 	(2)

	<p>improving her self-confidence (1).</p> <p>Accept any other appropriate answer.</p>	
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Question number	Answer	Mark
2 (e)	<p>Award 1 mark for stating an appropriate method of increasing self-confidence.</p> <ul style="list-style-type: none"> • Provide positive reinforcement (1) • Create a positive environment (1) • Goal setting (1) • Teach performer to use self-talk (1) <p>Accept any other appropriate answer.</p>	(1)

Question number	Answer	Mark
2 (f)	<p>Award 1 mark for the identification of a benefit of increased self-confidence, and 1 mark for a linked expansion of why participation will increase, up to a maximum of 2 marks.</p> <ul style="list-style-type: none"> • They will have a positive attitude / increased belief they can reach their <u>goal or aim</u> (1) increasing (intrinsic) motivation to participate (1) • They will have an improved performance/ / more enjoyment (1) leading to greater concentration and effort, increasing participation (1) <p>Accept any other appropriate answer.</p>	(2)

Question number	Answer	Mark
3 (a)	<p>Award 1 mark for the identification of each method of training for speed, up to a maximum of 2 marks.</p> <ul style="list-style-type: none"> • Interval training (1) • Sprint training (1) • Speed, agility and quickness training/ SAQ (1) <p>Accept any other appropriate answer.</p>	(2)

Question number	Answer	Mark
3 (b)	<p>Award 1 mark for each point describing how speed will improve javelin performance, up to a maximum of 2 marks.</p> <ul style="list-style-type: none"> • He will have a faster run up (1) increasing momentum when releasing the javelin (1) and generating more height/force when throwing (1) therefore travelling further through the air/increasing throwing distance (1). <p>Accept any other appropriate answer.</p>	(2)

Question number	Answer	Mark
3 (c)	<p>Award 1 mark for:</p> <ul style="list-style-type: none">• Motivation that comes from internal factors (1)• Motivation that comes from within the performer themselves (1) <p>Accept any other appropriate answer.</p>	<p>(1)</p>

Question number	Answer	Mark
3 (d)	<p>Award 1 mark for giving an appropriate example.</p> <ul style="list-style-type: none"> • Pride • Fun/enjoyment • Sense of achievement • Mastery <p>Accept any other appropriate answer.</p>	(1)

Question number	Answer	Mark
3 (e)	<p>Award 1 mark for giving an appropriate example, up to a maximum of 1 mark.</p> <ul style="list-style-type: none"> • Praise • Positive reinforcement • Positive feedback • Recognition • A title (e.g. Man of the match) <p>Accept any other appropriate answer.</p>	(1)

Question number	Answer	Mark
3 (f)	<p>Award 1 mark for stating each appropriate example, up to a maximum of 2 marks.</p> <ul style="list-style-type: none"> • Higher intensity of effort • Regular participation • Overcoming adversity • Higher enjoyment levels <p>Accept any other appropriate answer.</p>	(2)

Question number	Answer	Mark
4 (a)	<p>Award 1 mark for stating one piece of personal information, up to a maximum of 2 marks.</p> <ul style="list-style-type: none"> • Health issues (1) • Activity likes and dislikes (1) • Availability to exercise (1) • Vital statistics/age/weight (1) • Goals /aims (1) • Previous experience (1) <p>Accept any other appropriate answer.</p>	(2)

Question number	Answer	Mark
4 (b)	<p>Award 1 mark for stating one way a warm-up prepares the body, up to a maximum of 2 marks.</p> <ul style="list-style-type: none"> • Increase in heart rate (1) • Increase in joint mobility (1) <p>Accept any other appropriate answer.</p>	(2)

Question number	Answer	Mark
4 (c)	<p>Award 1 mark for identification of the relevant characteristic of continuous training, and a further 1 mark for a linked expansion related to the fat-burning zone, up to a maximum of 4 marks.</p> <ul style="list-style-type: none"> • Continuous training is long duration (1) and fat-burning exercise needs to be over 28 minutes long (1). • Continuous training is at a low to moderate intensity (1) and the fat-burning zone is between 60-70% MHR (1). <p>Accept any other appropriate answer.</p>	(4)

Question number	Answer	Mark
5 (a)	<p>Award 1 mark for naming an appropriate example, up to a maximum of 1 mark.</p> <ul style="list-style-type: none"> • Chicken (1) • Fish (1) • Lean beef (1) • Meat substitute (1) • Beans (1) • Nuts (1) • Eggs (1) <p>Accept any other appropriate answer.</p>	(1)

Question number	Answer	Mark
5 (b)	<p>Award 1 mark for naming a type of amino acid.</p> <ul style="list-style-type: none"> • Essential (1) • Non-essential (1) 	(1)

Question number	Answer	Mark
5 (c)	<p>Award 1 mark for the identification of a function, and 1 mark for an explanation of how this will benefit training, up to a maximum of 4 marks.</p> <ul style="list-style-type: none"> • Promotes muscle growth (1) therefore increasing strength for punching/blocking in his boxing match (1). • Repair of tissue/micro-tears (1) therefore reducing risk of injury/ allowing training to continue (1). <p>Accept any other appropriate answer.</p>	(4)

Question number	Answer	Mark
5 (d)	<p>Award 1 mark for each correct identification.</p> <ul style="list-style-type: none"> • 1 = Carbohydrate (1) • 2 = Fat (1) • 3 = Carbohydrate (1) <p>Accept any other appropriate answer.</p>	(3)

Question number	Answer	Mark
6 (a)	<p>Award 1 mark for naming an appropriate example.</p> <ul style="list-style-type: none"> • Oily fish (1) • <u>Red</u> meat (1) • Liver (1) • Eggs (1) • Fortified foods (1) <p>Accept any other appropriate answer.</p>	(1)

Question number	Answer	Mark
6 (b)	<p>Award 1 mark for stating the correct function of vitamin D.</p> <ul style="list-style-type: none">• Keeps bones/teeth/muscles healthy (1) <p>Accept any other appropriate answer.</p>	<p>(1)</p>

Question number	Answer	Mark
6 (c)	<p>Award 1 mark for the identification of a function of vitamin A and 1 mark for an expansion on why this benefits performance, up to a maximum of 2 marks</p> <ul style="list-style-type: none"> • Vitamin A maintains normal eyesight (1) therefore assisting hand-eye coordination/helping Sharon to hit and catch the ball (1). <p>Accept any other appropriate answer.</p>	(2)

Question number	Answer	Mark
6 (d)	<p>Award 1 mark for the naming an appropriate legal supplement to drink.</p> <ul style="list-style-type: none"> • Caffeine drink (1) • Glucose-based isotonic drink (1) <p>Accept any other appropriate answer.</p>	(1)

Question number	Answer	Mark
6 (e)	<p>Award 1 mark for each disadvantage stated, up to a maximum of 2 marks.</p> <ul style="list-style-type: none"> • Energy peaks/ benefits are short term (1) • Energy troughs / leaves performer feeling tired (1) • Weight gain (1) • Increased bowel movements (1) <p>Accept any other appropriate answer.</p>	(2)

Question number	Indicative content	Mark
7	<p>Responses may include the following.</p> <p>Definition</p> <ul style="list-style-type: none"> • Level of worry or nervousness a participant experiences. <p>Type of anxiety</p> <ul style="list-style-type: none"> • State anxiety • Only occurs in a particular situation. • Dai is only experiencing anxiety before matches, but is relaxed in training. • A match is a pressurised situation / participant must perform, so increases potential for anxiety. <p>Effects of anxiety</p> <ul style="list-style-type: none"> • Cognitive anxiety • Psychological effects of anxiety, thoughts rather than physical feelings. 	(9)

- Dai has difficulty sleeping. He feels worried and has doubts about taking part in the game.
- Other symptoms might include poor concentration, overthinking and lack of focus.

Methods of control

- Use of music
- Calming music to relax the performer.
- This provides a distraction from the nervous feelings.
- Team talk
- Positive messages from the coach
- Reassures players that they are good enough / capable.
- Increasing focus on game rather than worry or doubt.
- Reducing anxiety will make Dai feel more

	comfortable in pressurised situations and increase his future participation.	
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Level	Mark	Descriptor
Level 0	0	No rewardable material.
Level 1	1–3	<ul style="list-style-type: none"> • Demonstrates isolated elements of knowledge and understanding, there will be major gaps or omissions. • Few of the points made will be relevant to the context in the question. • Limited discussion that contains generic assertions rather than considering different aspects and the relationship between them.
Level 2	4–6	<ul style="list-style-type: none"> • Demonstrates some accurate knowledge and understanding, with only minor gaps or omissions. • Some of the points made will be relevant to the context in the question, but the link will not always be clear. • Displays a partially developed discussion that considers some

		different aspects and some consideration of how they interrelate, but not always in a sustained way.
Level 3	7-9	<ul style="list-style-type: none"> • Demonstrates mostly accurate and detailed knowledge and understanding. • Most of the points made will be relevant to the context in the question, and there will be clear links. • Displays a well-developed and logical discussion that clearly considers a range of different aspects and how they interrelate, in a sustained way.

Question number	Answer	Mark
8 (a)	<p>Award 1 mark for correct working out, 2 marks for correct answer, up to a maximum of 2 marks.</p> <ul style="list-style-type: none"> • 1500kcal ÷ 2 /1500kcal x 0.5 (50%) (1) = 750kcal (2) <p>Accept any other appropriate answer.</p>	(2)

Question number	Answer	Mark
8 (b)	<p>Award 1 mark for giving a meaning of dehydration.</p> <ul style="list-style-type: none"> • A harmful reduction in the amount of fluid in the body (1) <p>Accept any other appropriate answer.</p>	(1)

Question number	Answer	Mark
8 (c)	<p>Award 1 mark for identification of the effect on the body, and 1 mark for a linked expansion that will impair her ability to continue cycling, up to a maximum of 2 marks.</p> <ul style="list-style-type: none"> • Dehydration causes blood plasma volume to reduce / get thicker (1) resulting in reduced efficiency of oxygen/nutrient delivery to muscles (1) • Dehydration reduces ability to sweat (1) resulting in overheating (1). • Dehydration reduces lubrication at the joints (1) resulting in reduced ROM/ reduced fluidity of movements (1). <p>Accept any other appropriate answer.</p>	(2)

Question number	Answer	Mark
8 (d)	<p>Award 1 mark for identification of each area of improvement, up to a maximum of 3 marks.</p> <ul style="list-style-type: none"> • Eat correct percentages of macronutrients / too much fat/ not enough protein (1) • Inclusion of micronutrients / insufficient fruit and vegetables • Eat at least three meals a day / eat breakfast • Meet recommended daily allowance of calories (2000 kcal) <p>Accept any other appropriate answer.</p>	(3)

Question number	Indicative content	Mark
9	<p>Responses may include the following.</p> <ul style="list-style-type: none"> • After six weeks the participant will use the FITT principles to modify their training programme and ensure progressive overload is occurring. • Intensity • How hard a performer works during an activity. • Need to increase Rate of Perceived Exertion (RPE) to higher than 12. • Training for power should be high intensity so an RPE of 18 to 20 would be more appropriate. • Use a steeper hill / weighted vest • Causing muscular system to adapt and increase muscle size/strength /speed and force of contraction. • Helping her to run faster and jump 	(9)

higher during the game.

- Time
- Duration of an activity or session
- Need to increase session time to beyond 20 minutes.
- Power training should be short duration and high intensity so would need to complete more sprints to work for longer.
- Causing her muscular system to adapt and be able to deliver repeated maximal contractions over the full duration of the game.

- Type
- Training method or component of fitness being worked on.
- Could vary method and use plyometric training.
- This will prevent tedium
- Increase motivation to train
- Plyometric training may be more appropriate for the

	sport of volleyball as both involve lots of jumping / bounding activity.	
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Level	Mark	Descriptor
Level 0	0	No rewardable material.
Level 1	1-3	<ul style="list-style-type: none"> • Demonstrates isolated elements of knowledge and understanding, there will be major gaps or omissions. • Few of the points made will be relevant to the context in the question. • Limited evaluation that contains generic assertions, leading to a conclusion that is superficial or unsupported.
Level 2	4-6	<ul style="list-style-type: none"> • Demonstrates some accurate knowledge and understanding, with only minor gaps or omissions.

		<ul style="list-style-type: none"> • Some of the points made will be relevant to the context in the question, but the link will not always be clear. • Displays a partially developed evaluation that considers some different competing points, although not always in detail, leading to a conclusion that is partially supported.
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Level 3	7-9	<ul style="list-style-type: none"> • Demonstrates mostly accurate and thorough/detailed knowledge and understanding. • Most of the points made will be relevant to the context in the
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		<p>question, and there will be clear links.</p> <ul style="list-style-type: none">• Displays a well-developed and logical evaluation that clearly considers different aspects and competing points in detail, leading to a conclusion that is fully supported.
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