



Mark Scheme

BTEC Tech L1/2 in Sport – Component 3

Please read before distributing to students.

Purpose of this document

This document and the associated question paper are based on the data analysis performed by The EverLearner Ltd and published within the 2024 infographics. Please, note the following:

- We believe this mark scheme has a very strong association with previous BTEC L1/2 Tech Award in Sport Component 3 sample assessment material in relation to command terms, skills, extended writing requirements and topics.
- However, this is categorically NOT a mark scheme for a predicted paper. No one can accurately predict an exam paper and we make no claim to this end.
- It is vital that you only use this document internally in your school/college. Publishing the document online or sharing it in any other way is strictly prohibited as this will undermine the potentially educational experiences of students in other schools/colleges.
- Finally, please check the publication dates of the model answers for this paper as well as the associated revision sessions in April.

This mark scheme contains:

- Copy of each question for reference
- Marking guidance where appropriate
- Marking points containing alternative acceptable responses plus relevant assessment objective

How should schools use this mark scheme?

The mark scheme has been constructed specifically for the exam paper used in The EverLearner's National Mock Exams from 2024. The model answers will be available in early April and many of these questions will be discussed in the live revision show provided by James Simms (Thursday 25th of April, 15:00-16:30 on youtube.com/TheEverLearner).

All questions/mark schemes are available on ExamSimulator. Please note, there are hundreds of additional questions and mark schemes on ExamSimulator covering the IGCSE PE topics and skills. Within the platform, the teacher is assisted with the marking and full diagnostic feedback is also provided. ExamSimulator is a premium resource available via TheEverLearner.com.

I hope this helps both students and teachers in their exam preparations.

James Simms



Subject	Physical Education
Course	BTEC Tech Award in Sport (2022) Component 3: Developing Fitness to Improve Other Participants' Performance in Sport and Physical Activity
Time allowed	1 hour 30 minutes

Title	BTEC Tech (2022) Component 3 National Mock Exam Summer 2024
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Guidance	<p>This is a full National Mock Exam designed to help support students taking the Component 3 exam in Summer 2024. The paper has been modelled on the 2022 SAMS but contains brand new content. All questions and mark schemes are written with a thorough attention to detail by experienced exam writers.</p> <p>Instructions:</p> <ul style="list-style-type: none">• Answer all questions.• The final question of the paper is a synoptic assessment.• Good luck!
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Total marks	60
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1. Filip's lacrosse matches are 60-minutes long. He plays in midfield. Which of the following components of fitness would be most important to ensure that Filip can continuously keep up with the play?

Marking points **(maximum 1)**

(1) [AO 1] Option B/B/Aerobic endurance

2. Filip also needs flexibility when he is playing. Which of the following is the correct definition of flexibility?

Marking points **(maximum 1)**

(1) [AO 1] Option D/D/The range of motion possible at a joint to allow improvements in technique

3. To be the best that he can be, Filip regularly uses fitness testing to assess his fitness. Name two tests to measure flexibility **and** two tests to measure reaction time.

Marking guidance

Sub max two marks for naming the flexibility fitness tests and sub max two marks for naming the reaction time tests.

Marking points **(maximum 4)**

(1) [AO 1] Sit-and-reach test

(2) [AO 1] Calf muscle flexibility test

(3) [AO 1] Shoulder flexibility test

(4) [AO 1] Ruler-drop test

(5) [AO 1] Online reaction time test/Reaction test timer

4. Filip has recently completed a fourth set of fitness tests to measure his current fitness levels. Which **component of fitness** shows improvement over the year?

Marking guidance

The mark is only given for the named component of fitness, not for the fitness test

Marking points (maximum 1)

(1) [AO 3] Speed

5. Filip uses the vertical jump test to assess his leg power. He scores **64 cm**. Identify the correct category for his test score.

Marking points (maximum 1)

(1) [AO 3] Filip is above average/Above average

6. Filip wants to use circuit training to help him improve his aerobic endurance. Describe the key characteristics of an aerobic endurance circuit.

Marking points (maximum 3)

(1) [AO 1] Uses a number of stations/At least six different stations/Follow a route of exercise stations

(2) [AO 1] Exercises are completed for a set period of time/Work at a station for a specific length of time

(3) [AO 1] Minimal rest periods/Shorter rest periods/Minimal rest

(4) [AO 2] Shuttle runs/Burpees/Step-ups

(5) [AO 1] Weights not generally used/Heavy weight not used

(6) [AO 1] Vary the muscle groups as the focus is aerobic endurance, not muscular endurance/Use different muscle groups/Vary muscles used at each station

(7) [AO 1] Use a work:rest ratio so the cardiorespiratory system is being used/Appropriate work:rest ratio

(8) [AO 1] Intensity should be 60-85% maxHR

7. Filip's coach wants to create a training programme for Filip in order to help him improve his areas of weakness. Suggest the types of personal information that Filip's coach should use in order to influence the training programme.

Marking points **(maximum 3)**

- (1) [AO 1] Aims/What the athlete would like to achieve
- (2) [AO 1] Objectives/How to meet their aims
- (3) [AO 1] Lifestyle history/Smoking/Drinking
- (4) [AO 1] Physical history/Medical information/Recent operations
- (5) [AO 1] Personal motivation/Why they want to improve

8. Phoebe trains every day and is part of a para-swimming team aiming to make the next Olympics. Explain why she requires a high level of coordination in swimming.

Marking points **(maximum 2)**

- (1) [AO 1] The ability to move two or more body parts at the same time smoothly
- (2) [AO 3] To allow effective application of technique/To ensure her swimming technique is efficient
- (3) [AO 3] So her arms and legs can work together to propel her through the water

9. In order for Phoebe to improve her coordination, she needs to train it. Describe coordination training.

Marking points **(maximum 2)**

- (1) [AO 2] Incorporates two or more body parts working together/Using two or more body parts
- (2) [AO 2] Specific drills in the pool/Using her arms at the same time to increase efficiency/Use her arms and legs at the same time to improve technique

10. In addition to her other training, Phoebe also uses continuous training. Suggest two advantages **and** two disadvantages of this method of training.

Marking guidance

Sub max two marks for advantages and sub max two marks for disadvantages.

Marking points (maximum 4)

- (1) [AO 4] Requires minimal equipment/Only requires a swimming pool
- (2) [AO 4] Specific to her sport/Specificity can be applied/Can be specific to swimming
- (3) [AO 4] Easy to set up/No set-up time
- (4) [AO 4] Minimal cost/Cheap/Affordable
- (5) [AO 4] Improves aerobic endurance/Improves endurance
- (6) [AO 4] Replicates demands of the sport
- (7) [AO 4] Can be boring
- (8) [AO 4] Doesn't improve speed/Doesn't develop anaerobic capacity/Doesn't improve anaerobic fitness
- (9) [AO 4] Requires a lot of motivation

11. Phoebe is highly motivated to train and compete at her best. Describe the different types of motivation **and** explain the benefits to Phoebe's performance.

Marking guidance

Sub max three marks for the description of different types of motivation, including an example of one type.

Marking points (maximum 6)

- (1) [AO 1] Intrinsic motivation is participating in an activity for personal enjoyment
- (2) [AO 1] Extrinsic motivation is participating in an activity for rewards/Extrinsic motivation is when someone is driven by external sources/Extrinsic motivation is when performers want rewards
- (3) [AO 3] Rewards can be tangible/Rewards can include prize money and trophies/Rewards can be intangible
- (4) [AO 4] Increase in participation/Increase in task persistence
- (5) [AO 4] Maintain training and intensity
- (6) [AO 4] Increased fitness/Increased aerobic endurance
- (7) [AO 4] Improved performance

12. Explain why muscular strength is important to Samira when she is playing badminton.

Marking points (maximum 2)

- (1) [AO 3] Speed is needed to create power in order to hit the shuttle harder
- (2) [AO 4] Hitting the shuttle harder means the opposition are less likely to return it
- (3) [AO 3] Speed is needed to cross the court quickly
- (4) [AO 4] Quick movements make it easier to return the shuttle and not lose the point

13. Samira wants to test her strength using the grip dynamometer test. Describe the protocol for this fitness test.

Marking points **(maximum 2)**

(1) [AO 2] Stand with your arm by your side

(2) [AO 2] Squeeze the grip lever as hard as possible for 5 seconds/Apply as much grip pressure as possible

(3) [AO 2] Repeat the test 3 times for reliability

(4) [AO 2] Complete on both left and right hands/Use dominant hand

14. Samira would like to improve her balance, but first she must find out how good her balance is. Name a balance test and explain why this is a suitable test to assess balance.

Marking guidance

Sub max one mark for naming the test.

Marking points **(maximum 2)**

(1) [AO 1] Stork stand test/Standing stork test/Y balance test

(2) [AO 4] Maintaining centre of mass over a base of support/Maintaining her body over her foot for as long as possible

15. State what the F in FITT stands for and suggest how this could be applied to a six-week training programme.

Marking points **(maximum 2)**

(1) [AO 1] Frequency

(2) [AO 3] Each week increase the number of training sessions/Fortnightly increase the number of training sessions/Weeks one and two have two training sessions, weeks three and four have three training sessions, weeks five and six have four training sessions

16. Explain how Samira would adapt her circuit training to develop her muscular endurance and her muscular strength.

Marking points **(maximum 2)**

(1) [AO 3] Muscular strength circuit would have high loads and low repetitions/Lift heavy weights to develop muscular strength

(2) [AO 3] Muscular endurance circuit would have low loads and high repetitions

17. Before completing her circuit training, Samira is careful to ensure she warms up fully. Suggest the responses of the cardiorespiratory system during static stretches.

Marking points **(maximum 2)**

(1) [AO 2] Drop in heart rate/Slight drop in heart rate/Heart rate lowers

(2) [AO 2] Drop in breathing rate/Slight drop in breathing rate/Breathing rate slows

18. Describe, using an example, how the Borg scale can be used to monitor Samira's exercise intensity when completing her circuit training.

Marking points **(maximum 2)**

(1) [AO 2] Borg scale measures perceived exertion/Measures rate of perceived exertion/Measures how hard you think you are working

(2) [AO 2] Borg scale can link to heart rate, x10 to find current heart rate

(3) [AO 3] Burpees perceived as 17, wall-sit perceived as 11

(4) [AO 3] Can adjust the stations to reflect the required intensity/Identify stations that need to change intensity

19. Apart from the Borg scale, identify **two** other ways to measure exercise intensity.

Marking points **(maximum 2)**

- (1) [AO 2] Measuring heart rate/Heart rate monitors
- (2) [AO 2] Target zones/Training thresholds/Aerobic training zone
- (3) [AO 2] Calculate 1RM for strength/1 rep max/15RM for endurance

20. Mills competes for his local athletics club at the steeplechase, where he runs 2000m, jumping over obstacles. Therefore, body composition is important to Mills. What is the definition of body composition?

Marking points **(maximum 1)**

- (1) [AO 1] The relative ratio of fat mass to fat-free mass in the body

21. Which of the following body composition tests measure a person's weight in kilograms divided by their height in metres squared?

Marking points **(maximum 1)**

- (1) [AO 1] Option C/C/Body mass index

22. Mills trains three times a week. His coach has recently decided to introduce Fartlek training to his training group. Justify his coach's choice for Fartlek training.

Marking points **(maximum 3)**

- (1) [AO 1] Fartlek is a form of continuous training where intensity, terrain or incline are varied
- (2) [AO 3] A change of speed would match the change of speed required in the steeplechase
- (3) [AO 1] Training on different surfaces such as track, sand, water
- (4) [AO 1] Fartlek accurately replicates the acceleration needed when racing
- (5) [AO 4] Fartlek is more varied than continuous, so it is less boring/Less tedium due to variety of tempos

23. Describe a Fartlek session for Mills.

Marking points (**maximum 2**)

- (1) [AO 3] Session should last minimum of 30 minutes
- (2) [AO 3] Low work intensity/60-80% maxHR
- (3) [AO 3] Change in speeds shown

24. In addition to Mills's Fartlek training, he has been using continuous training to help improve his steeplechase performance. Suggest the benefits of these types of training on Mills's body systems.

Marking points (**maximum 3**)

- (1) [AO 4] Cardiac hypertrophy/Increase in size and strength of the heart
- (2) [AO 4] Decrease in resting heart rate
- (3) [AO 4] Increased strength of respiratory muscles
- (4) [AO 4] Capillarisation around the alveoli
- (5) [AO 4] Adaptations to the cardiovascular system/Adaptations to the respiratory system/Adaptations to the cardiorespiratory system

25. Evaluate the use of the Harvard step test and 12-minute Cooper run for Mills to assess his fitness for the steeplechase.

Marking points (**maximum 6**)

(1) [AO 2] Both measure aerobic endurance

(2) [AO 4] 12-minute Cooper run is running-based, which is specific to steeplechase/Specific to sport

(3) [AO 4] Harvard step test is not as specific/Stepping, not running-based

(4) [AO 2] Harvard step test requires equipment/Less practical

(5) [AO 2] 12-minute Cooper run requires a large area/Steeplechaser will probably have access to a track/More practical

(6) [AO 4] Neither test is a maximal test/Both are submaximal/Steeplechase is submaximal

(7) [AO 4] Both tests are standardised tests with normative comparisons/Standardised/Normative data comparison

(8) [AO 4] Both can be completed with other participants similar to steeplechase/Good for groups/Good for the whole team

(9) [AO 4] Both tests have good levels of reliability