National Mock Exams 2024
POWERED BY **ExamSimulator**

BTEC Level 3 Sport Unit 1 Anatomy and Physiology

Please read before distributing to students.

Purpose of this document

The questions contained within this document and the associated mark scheme are based on the data analysis performed by The EverLearner Ltd. Please note the following:

- We believe this paper has a very strong association with the actual external exam in 2024 in relation to command terms, skills, AO distribution, extended writing requirements and topics.
- However, this is categorically NOT 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 mark scheme and model answers for this paper as well as the associated revision session in May/June.

This paper contains:
- Questions in the format of the BTEC Level 3 Sport Unit 1 Anatomy and Physiology exam
- Multiple-choice questions
- Short-answer questions
- Extended writing

How should schools use these papers?
This paper has been constructed specifically for use as a mock exam but can be used less formally as a practice paper or model paper. The content and skills of the paper will be developed within the free-to-air revision sessions offered by James Simms on **Thursday 2nd of May 2024 at 15:00.**

All questions are available on **ExamSimulator,** where they can be practised multiple times in both online and printable format. **ExamSimulator** is a premium resource available via TheEverLearner.com and provides immediate diagnostics of student writing performance after every exam answer.

James Simms

The EverLearner

Subject	Physical Education
Course	BTEC Level 3 Sport: Unit 1 Anatomy and Physiology
Time allowed	1 hour 30 minutes

First name	
Last name	
Class	
Teacher	

Title	BTEC Level 3 Sport Unit 1 Anatomy and Physiology National Mock Exam Summer 2024

Guidance	• This paper is marked out of 80 marks. • You have 90 minutes (plus additional time for those who have Exam Access Arrangements). • Answer all questions. • A calculator is permitted for this exam. • This paper contains one 8-mark question. • Good luck.

Total marks	80

1. Describe **two** functions of long bones.

Function 1: _____

_____

Function 2: _____

_____

Marks: **[2]**

2. Identify the three bones labelled on this image.
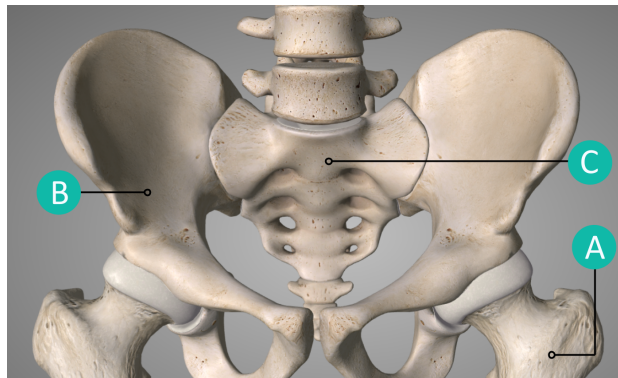
A: _____

B: _____

C: _____

Marks: **[3]**

3. Protection, support and store of minerals are all functions of the skeleton. Identify **one** other function of the skeleton.

_____

_____

_____

Marks: **[1]**

4. Look closely at this image. Explain how the skeleton protects the performer during entry to the water in a high dive.
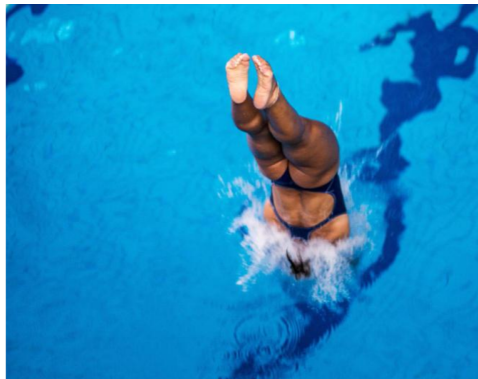
Marks: **[3]**

5. Look closely at this image. Explain how movements at the knee **and** ankle allow the player to take a successful free throw.

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Marks: **[3]**

6. Describe adaptations to the muscular system as a result of regular circuit training.

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Marks: **[3]**

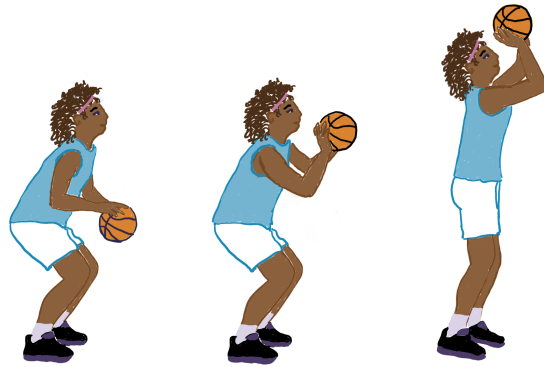**7.** Identify the muscle group highlighted in this image.

Marks: **[1]**

8. Explain the role of this muscle group during a kick in taekwondo.

Marks: **[2]**

9. Describe **two** responses of the muscular system to a single exercise session.

Response 1: _____

Response 2 _____
_____

Marks: **[2]**

10. Name the muscle fibre type that would be **most** beneficial to a marathon runner.
Justify your choice.

Muscle fibre type: _____
Justification: _____
_____
_____
_____

Marks: **[3]**

11. Identify the **two** parts of the respiratory system labelled in this image.
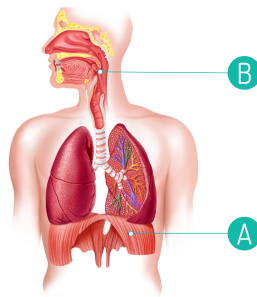
A: _____
B: _____

Marks: **[2]**

12. Describe residual volume.

_____
_____
_____

Marks: **[1]**

13. Explain the mechanics of breathing during **inspiration** whilst exercising.

_____

_____

_____

_____

_____

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_____

Marks: **[3]**

14. Explain how breathing rate is controlled during exercise.

_____

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Marks: **[4]**

15. Explain why a coach would encourage an endurance athlete to attend a high-altitude training camp.

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_____

Marks: **[6]**

16. Describe **three** features of veins.

Feature 1: _____

Feature 2: _____

Feature 3: _____

Marks: **[3]**

17. Cardiac hypertrophy and a decrease in resting heart rate are two cardiovascular adaptations to exercise.
Identify **three** other adaptations.

_____

_____

_____

_____

_____

_____

_____

Marks: **[3]**

18. Explain how blood flow is redirected in response to exercise.

_____

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Marks: **[4]**

19. Describe the role of Purkinje fibres **and** the sinoatrial node as part of the conduction system.

Purkinje fibre: _____

_____

Sinoatrial node: _____

_____

Marks: **[4]**

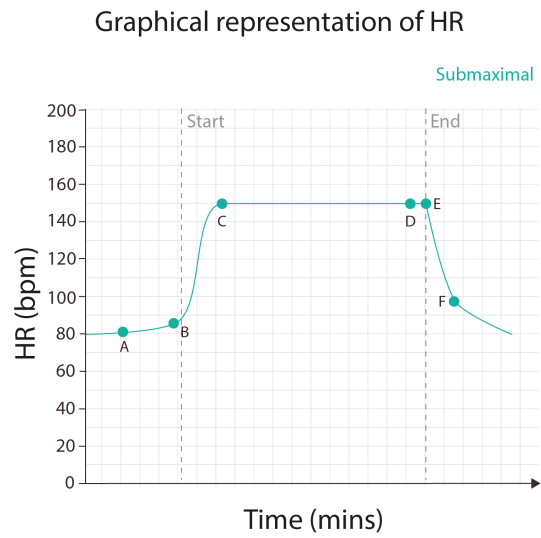**20.** Look closely at this line graph, which shows the heart rate of a performer before, during and after a continuous training session.
Analyse the performer's heart rate at points A-B ,C-D and E-F.

Graphical representation of HR

A-B: _____

_____

_____

C-D: _____

_____

_____

E-F: _____

_____

_____

Marks: **[6]**

21. Describe the ATP-PC energy system.

_____

_____

_____

_____

_____

_____

_____

_____

_____

Marks: **[4]**

22. Identify the three stages of the **aerobic system**.

Stage 1: _____

Stage 2: _____

Stage 3: _____

Marks: **[3]**

23. Evaluate the use of the aerobic energy system for the long jump.

_____

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_____

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_____

Marks: **[6]**

24. Look closely at this image.

Analyse the role of the musculoskeletal system at the shoulder and elbow joints to allow the performer to propel the javelin.

Marks: **[8]**