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Answers

Exam-style questions

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Check your answers to the questions in this issue.

Exam focus: Specialist training and energy systems (p. 8–11)

1 Short duration / 20 secs intense exercise

High intensity, anaerobic

Short bursts of activity with 10 secs rest

Built in 6–8 cycles

AO2 — Increases anaerobic capacity

Reduces body fat/risk of obesity

Highly motivating due to short duration of activity

Improves power, jump height or throwing distance

2 AO1 — Plyometric training involves bounding, hopping and jumping movements

AO2 — Designed to improve explosive power

It is anaerobic in nature and high intensity

It involves fast twitch muscle fibres / type 2 / FTG or FTOG

Isotonic eccentric muscle contraction happens first

Followed by isotonic concentric contraction

The stretch reflex activated/stimulated

Which is detected by the muscle spindles

A nerve impulse is sent via the central nervous system to the brain

The muscle spindles protect the muscle from over stretching and avoid injury

3 AO1 — Training at altitude above 2000m, where the partial pressure of oxygen is reduced/lower

AO2 — Apply to sporting context

Therefore, less oxygen is available for exercising/working muscles.

AO3 benefits:

Benefits endurance/aerobic performers

The body responds to lower oxygen pressure by increasing the number of red blood cells/haemoglobin/haematocrit

This enhances oxygen transport upon return to sea level for training/competition

AO3 drawbacks:

Due to lack of oxygen at altitude, training is less effective and therefore, athletes experience a detraining effect.

There is a possibility of suffering from altitude sickness

Training abroad at specialist centres is expensive

The benefits are soon lost on return to sea level, lasting only a few weeks

Hypoxic tents allow people to live in conditions of altitude but train in conditions of sea level

Decide whether or not altitude training is effective

A history of sport in public schools (p. 27–29)

1 Suggested solutions:

Organised sport was developed to help positively influence pupil's behaviour. This was achieved through:

- The introduction of more formal rules, for example, pitch dimensions and numbers in teams.
- Competitive matches between houses were organised and supervised by senior boys, known as prefects. This allowed those boys to develop essential leadership skills when keeping the younger boys under control.
- Some headmasters realised the boys needed to use their free time constructively and sport was seen as a way of promoting a more civilised code of behaviour, thereby controlling unruly behaviour.

2 Suggested solutions:

The headmasters saw the wider social and behavioural benefits of sport. As they were played more often, there was a subsequent improvement in playing standards and techniques.

These improved standards were also aided by the development of facilities, equipment and coaching.

As transport infrastructure improved, it became far easier for schools to play each other and for major newspapers to print the fixtures and results.

Indeed, major sporting venues were used to host inter-school matches, such as the Eton vs Harrow cricket match played at Lord's.

The schools recognised that success on the playing fields and courts would be seen as a way for the school to gain social status and potentially attract more able pupils.

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