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Answers

Exam-style questions

Adam Morton and Jonathan Stamford

Check your answers to the questions in this issue.

Interview with Olympic hockey coach Kwan Browne (pp. 8–11)

1 a One mark for any of the following:

Greater than three minutes, therefore aerobic system.

Stages: aerobic glycolysis, Krebs cycle, and electron transport chain.

Yield: 1 glucose = 38ATP.

Enzymes: GPP PFK.

Location: it takes place in the cristae and matrix of mitochondria.

b Fast (alactic) component takes up to three minutes, therefore complete.

ATP/PC (phosphagen) resynthesis.

Slow (lactic) component takes up to an hour, therefore only partially complete.

Metabolism of lactic acid.

Maintenance of elevated heart rate and breathing rate.

2 One mark for any of the following:

- GPS and heart rate monitoring.
- Measures total distance run, high speed metres and accelerations.
- It can be used to monitor internal (HR) and external workload (*m*), as well as plan training.
- It can be used to reduce injury risk and rehabilitate injured players.
- It can be used to inform substitutions (i.e., rotating off tired players).

For full marks, drawbacks must also be included:

- It is expensive.
- It can sometimes be used instead of a coach's judgement, which is more responsive to the context of the game.

Who will host? (pp. 21–23)

1 One mark for any of the following:

- Athletes competing on home territory will have the advantage of local support from the crowd and the familiarity of performing in certain settings and climate.
- Hosting events can help secure government funding and improved sports administration which in turn can benefit targeted sports.
- The state-of-the-art sports facilities built for the global event will provide a legacy and benefit future athletes.
- Hosting events allow successful athletes to gain popular publicity and become positive role models who inspire younger generations to participate and achieve excellence in the future.

2 One mark for any of the following answers, or any other relevant points made:

- Hosting the Olympics is very expensive and costs billions of pounds. Even the bidding process incurs large costs and there is no guarantee that the city will win, as Paris discovered when it failed to win the 2020 Olympics, despite being favourites. Consequently, the games may lead to future debt. Montreal did not finish paying off its debt from the 1976 Olympics until 2006.
- Hosting Games are often unpopular with the local population who would prefer to see investment in education, healthcare and/or other social needs, rather than large sums spent on a huge sporting event. Local inhabitants will fight to protect their homes if they are situated in sites earmarked for development of sports facilities. Local people may also be wary of an increased threat of terrorism, environmental pollution and transport chaos, causing pressure groups to lobby against being hosts.
- Cities may fear that any benefits, such as a boost to the economy and participation rates, will be short lived. They may be left with sporting facilities that become 'white elephants' that are no longer required or purposeful after the Olympic Games.
- Media attention may bring unwanted attention to politically sensitive aspects of a city, and unsuccessful elements of the Olympic Games may bring negative publicity. Human rights issues were highlighted in the 2008 Beijing Olympic Games and corruption in Brazil received increased media attention in 2016.

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