**Name:**

**Sports technology summary quiz**

1. Data from video analysis tools is used to improve the sporting performance of those being filmed. State one other function of video analysis tools. [1]

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1. ‘Hawkeye’ has been used in Tennis with the aim of improving the accuracy of ‘IN’ and ‘OUT’ calls. Identify one other technological device used to aid officiating in sport. [1]

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1. List 3 drawbacks of using technology to help with officiating in sport. [3]

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1. How does metabolic cart estimate indirect calorimetry? [1]
2. Taking blood samples at increasing exercise intensities
3. Measurement of O2 consumption and CO2 production
4. Measurement of O2 levels in the blood
5. Measurement of changes to tidal volume during exercise
6. State one way in which performance in disability sport has been improved by material technology. [1]

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1. Satellite position can affect the accuracy of data output from which of the following tools: [1]
2. Metabolic Cart
3. Video analysis
4. Power plate
5. GPS
6. The multi-stage fitness test is a running test used to estimate an athlete's VO2 max. Athletes must run from one line to another before a timed beep. Athletes must continue running back and forth, each time reaching the line before the next beep. The beeps get progressively faster and when a player can no longer run, the test is over and level is recorded.

A coach makes a group of runners take part in a multi-stage fitness test.

Which of the following factors reduces the validity of the test? [1]

1. Human error may occur when the scores are written down
2. VO2 Max scores may be affected by a runner’s agility level
3. Runners may not be motivated to work maximally and so drop out before exhaustion
4. Some runners turn before reaching the line, so run less distance
5. Give an example of qualitative data collection in sport [1]

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1. How might sports like cycling and swimming be negatively impacted by technological/material developments in speed suits which contribute to faster times? [1]

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1. How might developments in surface technology contribute to increased grass-roots sports participation? [1]

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1. State four ways in which UK society has benefitted from the ‘2012 Olympic legacy’ [4]

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1. Advancements in media technologies (eg satellite TV, social media) have allowed for bigger TV audiences.

List three ways in which sports are negatively affected by developments in media technologies? [3]

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1. Metabolic Cart can be used to calculate REE. What does REE stand for? [1]
2. Resting Energy Expenditure
3. Rate of Excess Expiration
4. Recovery at End of Exercise
5. Respiratory Exercise Evaluation

Total marks/ 20