

平成 31 年度博士前期課程体育学専攻入学試験問題

外国語
(英語)

<注意事項>

- 1) 解答は問題用紙に直接記入すること。
- 2) 3 枚の問題用紙すべてに、受験番号を必ず記入すること。

(筑波大学大学院人間総合科学研究科)

受験番号 _____

問1 以下の英文を読んで、設問に答えなさい。

The combination of technology and sport is not a very new development. Technology has led to the improvement of the equipment used in sport (①) it is more comfortable and exciting for the spectators and more safe and satisfying for the athletes. Baseballs and golf balls are now designed to go farther and faster. Stopwatches, electronic starting blocks, and photographic equipment have improved measurement precision, and computers have made it possible to predict the performance potential of prospective athletes, to formulate complex game plans, and to make strategy decisions on the basis of programmed odds. The media has improved spectator access to the world of sport both on and off the field. Domed, airconditioned, and artificially turfed stadiums provide the spectators with more comfort while at the same time standardizing the physical conditions under which sporting events are staged. Sports (②) football and baseball can now be viewed without interference from the weather. And these changes just begin to scratch the surface of how technology has already been utilized in sport.

The shape of technosport* is basically geared to producing two kinds of effects: *maximizing the output* of the athlete for the sake of performance records or for the sake of pleasing spectators and *maximizing spectator access* to the world of sport. Paradoxically, an extreme form of technosport destroys the meaning of performance records and also destroys the experience of involvement as a source of satisfaction for most of the participants, including the spectators. (X) technosport is not really sport at all, (③) a spectacular form of programmed competitive physical activities. The play element in the activities is destroyed, and the activities themselves undergo qualitative changes that definitely alter the meaning of the "sport experience" for both players and spectators. These changes are interesting to discuss and intriguing to think about, but it is not likely that they will be eagerly accepted or promoted in the near future.

(Coakley JJ, Sport in society, The C.V. Mosby Company, 1978 より改変)

*technosport:テクノロジーと結合したスポーツ

(1) この文章のタイトルは、"Technosport: the (A) of play" です。Aの用語として適切なもの次の中から一つ選び、() 内に○をつけなさい。

() value () development () effect () change () destruction

(2) 文中の (①) (②) (③) 内に入る語の適切な組み合わせを一つ選び () 内に○をつけなさい。

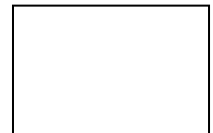
() ① so that ② but only ③ such as
() ① such as ② so that ③ but only
() ① so that ② such as ③ but only
() ① but only ② such as ③ so that

(3) 文中の (X) に入る最も適切な語を1つ選び () 内に○をつけなさい。

() Thus () However () Furthermore () Recently

(4) 本文の内容に一致するものには○を、一致しないものには×を () 内に記入しなさい。

() 近い将来、プレーヤーと観戦者にとって、スポーツ経験の意味が全く変化してしまうだろう。
() テクノロジーの発展は、観戦者に対しては快適さを、競技者には安全と満足をもたらした。
() テクノロジーとスポーツの結合は、スポーツの発展であり、全面的にこれを推進した方がよい。
() Technosport は、競技記録やスポーツ参加の意味を質的に高めている。
() コンピュータは、複雑なゲーム戦略の決定をすることはできない。



問2 以下の英文を読んで、設問に答えなさい。

Elite athletes are frequently required to travel long distances for major competitions. Often, professional sport involves intermittent stints of long-haul travel throughout an entire season; international contests, such as the Olympic Games, World Cup competitions and Grand Prix events, involve many athletes coming together from different locations, and hence various time zones.

Rapid airline travel across time zones has been anecdotally noted to cause deterioration in athletic performance. Inherent to travel (①) multiple variables, each potentially having their own effect on athletic performance, yet it is difficult to determine the extent to which each contributes to suboptimal performance. Some factors associated with travel that may affect performance include jet lag and circadian rhythm disruption, altitude, alterations in diet and sleep deprivation.

Although there has been relatively little investigation into the topic, the available evidence (②) that there is a detrimental effect of travel on athletic performance due to jet lag and disruption of circadian rhythmicity. Study of this topic is important in order to understand effects of travel on training and performance, which in turn might allow effective timing and cueing strategies to optimise performance at the destination.

This review will discuss principles of circadian rhythms and jet lag and provide a review of the current, relevant literature (③) to travel and performance. Finally, the review will offer some evidence-based recommendations for athletes that must undergo travel and perform optimally upon arrival.

(Leatherwood WE, Dragoo JL, Effect of airline travel on performance: a review of the literature, British Journal of Sports Medicine, 47, 561-567, 2013 より改変)

(1) 文中の ① ~ ③ に入る最も適切な語を次の語群の中から1つ選び、回答欄に記入しなさい。

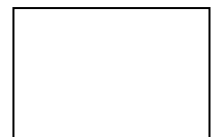
語群：

- ① is, are, being, can, should, would
- ② suggests, suggested, reported, report, developed, has developed
- ③ has argued, argued, relating, relates, discussed, discussing

① _____ ② _____ ③ _____

(2) 次の文章を本文と照らし合わせ、文中で言及されておりかつ内容が一致していれば ○、言及されているが内容が間違っていれば ×、全く言及されていないならば - を () につけなさい。

1. () 時差ぼけやサーカディアンリズムの乱れは、アスリートのパフォーマンスに良い影響をもたらす。
2. () 時差ぼけは、東回りよりも西回りの飛行機を利用した移動時にひどくなる。
3. () ベストパフォーマンスが発揮できないことにどんな要素がどの程度影響を与えているかを特定することは困難である。
4. () 船旅では時差ぼけが起こらないことが既に科学的に証明されており、アスリートに推奨される。



問3 以下の英文を読んで、設問に答えなさい。

Despite his loss and subsequent retirement at the world championships in London last month, Usain Bolt still holds the record as the (①) human in history. The Jamaican was already a potent force of nature on the track, but when he sealed his unprecedented ‘triple triple’ at the 2016 Olympic Games in Rio de Janeiro by winning the 100-metre, 200-metre and 4 × 100-metre events for the third time, his performance was all the more astonishing. “We’ve never seen the likes of this, and surely we (②) see it again,” said one commentator at the time.

Although one of Bolt’s wins at the 2008 Beijing Olympics was disqualified because of teammate Nesta Carter’s doping violation, making his title a ‘double triple’, the sprinter’s dominance has prompted a mix of both wonder and puzzlement. To understand it, commentators and the public have had to turn to science.

Sprinters face a trade-off when it comes to their physique — a taller sprinter enjoys a longer stride, which means he or she has fewer steps to take over a full race. But those longer legs take more work to move: a shorter sprinter can take his or her strides faster. This leads to a simple (③) between length and frequency. Most sprinters aren’t as tall as you might expect — they’re never much more than 6 feet (1.83 m).

This makes Bolt’s height his most remarkable physical feature. “At 1.96 m, Bolt is very tall and he has a big body mass of 90-93 kilograms when he competes. This gives him a long stride of 2.77 m in his maximal speed phase,” says Antti Mero, an exercise biologist at the University of Jyväskylä* in Finland. “Even though he’s tall, he also has quite a high stride rate of 4.49 strides per second. Bolt can excel due to his long stride and his rather high stride rate.”

(Hornyak T, Smarter, not harder, Nature, 549, s1-s3, 07 September 2017 より改変)

*University of Jyväskylä : ユバスキュラ大学

- (1) 文中 (①) に入る最も適切な語を一つ選び、 () に○をつけなさい。
 () fastest () faster () fast () fasting
- (2) 文中 (②) に入る最も適切な語を一つ選び、 () に○をつけなさい。
 () may () will () won’t () must
- (3) 文中 (③) に入る最も適切な語を一つ選び、 () に○をつけなさい。
 () dissociation () homeostasis () isometric () equilibrium
- (4) 本文の内容に一致するものには○を、そうでないものには×を () につけなさい。
 () ボルト選手は ‘triple triple’ を実現したといわれているが、実際は ‘double double’ である。
 () カーター選手はドーピングにより、タイトルが ‘double triple’ になった。
 () スプリンターのストライドとピッチ (rate) には、トレードオフの関係がある。
 () 多くのスプリンターは、身長が6 フィート (1.83 m) 以下だとされている。
 () ボルト選手は、身長が 1.96 m と高く、ストライドが 2.77 m であるにも関わらず、4.49 歩毎秒のピッチ (rate) を実現できている。

