**PHED 3 revision paper D**

**Qu 1**

The triathlon is an athletic event that involves performers undertaking a long distance swim, immediately followed by a cycle race and then finally a run of several kilometres. Explain how these energy sources are used for the regeneration of ATP and how altitude training may be of benefit to a triathlete. *(14 marks)*

**Qu 2**

As part of his training programme, an elite 400-metre runner uses interval training. **Table 1** shows his times for six 400-metre sprints, where each sprint was followed by a 60 second recovery period.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| First run | Second run | Third run | Forth run | Fifth run | Sixth run |
| 52.6 secs | 52.8 secs | 53.2 secs | 53.4 secs | 53.6 secs | 54.2 secs |

**Table 1**

(a) During this training session the sprinter would have reached their lactate threshold.

What do you understand by the term *lactate threshold* **and** how would the majority of the sprinter’s energy be supplied during the periods of activity? *(4 marks)*

(b) Using the information in **Table 1**, suggest reasons why the time taken to complete the final run was much slower than the time taken to complete the first run. *(3 marks)*

**Qu 3**

(a) Use *Newton’s Laws of Motion* to explain how a performer can move a ball during one of these games. *(4 marks)*

(b) In hockey, golf and rugby, the performer may hit or kick the ball into the air, where it

becomes a *projectile*. Explain how the various forces act to affect a projectile **during** its flight. *(3 marks)*

**Qu 4**

(c) Long distance runners may prepare for their activity by *glycogen-loading*. What is

meant by this term **and** discuss its possible disadvantages? *(3 marks)*

(d) Long distance runners may experience difficulties with their *temperature regulation*

during performance. Why may increased body temperature cause a problem? *(4 marks)*

**Qu 5**

It was previously thought that certain personality types tended to become involved in particular sports, thus those participating in a triathlon may have shared common personality characteristics. Explain how traits may affect a performance. *(14 marks)*

**Qu 6**

Elite performers take part in training programmes that are carefully planned and will often include goal-setting to improve performance.

(a) Why should *goal setting* lead to improved performance? *(2 marks)*

(b) Explain the main principles of effective goal-setting. *(5 marks)*

**Qu 7**

The members of a sports team are usually led by a captain, manager and/or coach. Fiedler (1967) suggested that such leaders had one of two types of leadership style.

(a) Identify Fiedler’s **two** *leadership styles* and describe the situations in which each type of leader would be most effective. *(2 marks)*

(b) “In order to be effective, leaders need to be sensitive to the characteristics of the group

members”. (B. Woods (1998); Applying Psychology to Sport. Hodder and Stoughton).

Explain how leadership styles should be adapted depending on the different characteristics such as size, age, gender and skill level, of a team. *(5 marks)*

**Qu 8**

Long distance runners need a good psychological and physiological approach to their activity.

Most long distance runners have positive attitudes to their preparation and performance.

(a) What is meant by *attitudes* **and** how are they formed? *(4 marks)*

(b) Discuss whether attitudes help predict behaviour. *(3 marks)*