



**General Certificate of Education**

**Health and Social Care  
8626/8629**

**HC13**

**The Role of Exercise in Maintaining  
Health and Well-being**

**Report on the Examination**

*June 2009*

Further copies of this Report are available to download from the AQA Website: [www.aqa.org.uk](http://www.aqa.org.uk)

Copyright © 2009 AQA and its licensors. All rights reserved.

#### COPYRIGHT

AQA retains the copyright on all its publications. However, registered centres for AQA are permitted to copy material from this booklet for their own internal use, with the following important exception: AQA cannot give permission to centres to photocopy any material that is acknowledged to a third party even for internal use within the centre.

Set and published by the Assessment and Qualifications Alliance.

The Assessment and Qualifications Alliance (AQA) is a company limited by guarantee registered in England and Wales (company number 3644723) and a registered charity (registered charity number 1073334). Registered address: AQA, Devas Street, Manchester M15 6EX  
*Dr Michael Cresswell Director General.*

## **HC13: The Role of Exercise in Maintaining Health and Well-being**

Candidates' performance on this paper generally demonstrated very similar strengths and weaknesses to previous series. There were some very high scoring scripts from candidates who applied their knowledge well and made good use of technical terminology. The scripts of lower ability candidates again tended to have much poorer use of technical language and offer far less detail in their responses.

### **Question 1**

Candidates were generally secure in their understanding of good aerobic fitness with most gaining at least two of the four marks available in (a)(i). Factors affecting aerobic fitness also produced mainly correct responses with the majority scoring with age and genetics responses. In part (b) some candidates described long term, rather than short term physiological effects and consequently failed to gain the marks. Most candidates understood what is meant by dynamic strength but weaker candidates sometimes confused this with stamina and/or maximal strength. Part (c) produced many good answers detailing how self –confidence can be raised and how chemical secretions in the brain may affect self image and give a sense of well-being.

### **Question 2**

In part (a)(i) there were many good answers referring to the role of the appetite in the hypothalamus, however weaker candidates were often restricted to a single mark for suppression of appetite as their responses lacked other relevant details. The energy equation was generally understood but again weaker candidates often produced vague and repetitive responses worth only two of the five marks available. As on previous papers candidates were generally able to score at least half of the available marks for sound accounts of the benefits of warm-up procedures prior to starting exercise. The highest scoring answers invariably contained good physiological details while the lower scoring answers were limited to more general statements usually based on limiting injuries. In part (b)(ii), the majority of candidates gained marks for answers explaining reducing accident risks and/or aiding temperature control and/or allowing freedom of movement.

### **Question 3**

As on all previous papers, the data question proved to be the most challenging for the majority of candidates. Most candidates were able to score two marks in part (a)(i) or Male X below normal range resting pulse and possibly very fit and Male W above normal range resting pulse and therefore possibly unfit. Weaker candidates incorrectly suggested that Male Y was probably fitter than Male Z as his resting pulse was the lower of the two, rather than understanding that both males are within the normal 60-80 bpm range.

In part (b)(ii) the weaker candidates often repeated the information given, e.g. describing minute by minute changes rather than interpreting what the changes were indicating about the four males. Most candidates correctly concluded that Male X was the fittest of the four as his pulse returned to resting rate the fastest. Male Z as second fittest was determined by fewer candidates and many weaker candidates failed to recognise that males W and Y were of similar fitness level and both less fit than males X and Z.

Part (b) proved less challenging with the vast majority gaining one of the two marks in (b)(i) by recognising the significance of the low peak flow reading and at least two of the four marks available for outlining one way to measure peak flow.

Minute ventilation was generally well answered but weaker candidates sometimes mixed up the two ways this could be answered, i.e. breathing rate x tidal volume or volume of air inspired/expired in one minute.

#### **Question 4**

In part (a) of this question most candidates were able to gain more than half the marks by identifying the barriers in Trevor's life and making appropriate suggestions for how they may be overcome. Marks were lost in some cases by candidates repeating the same suggestions for different barriers rather than offering different solutions. Some weaker candidates introduced information from beyond the scenario of the question, by suggesting Trevor has a low skill or fitness level. In identification questions candidates must restrict themselves to the information provided in order to score the marks.

The majority of candidates successfully named at least two diseases which could be improved by regular exercise in part (b)(i), but many answers in part (b)(ii) were limited by a lack of appropriate physiological details. As a result many candidates only gained one of the three marks available for each disease.

#### **Grade boundaries**

Grade boundaries and cumulative percentage grades are available on the AQA website at [www.aqa.org.uk/over/stat.html](http://www.aqa.org.uk/over/stat.html)