



General Certificate of Education

**Health and Social Care
8621/8623/8626/8627/8629**

HC19 Physiological Aspects of Health

Report on the Examination

June 2010

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Set and published by the Assessment and Qualifications Alliance.

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HC19 Physiological Aspects of Health

General comments

Candidate performance on this unit continues to be generally sound, with a significant proportion of high mark portfolios and very few low ones. The majority of candidates organised their work into the four sections as outlined in the specification, which helps maintain the focus of the work as a practical investigation. Where assessor comments were included on the candidate record forms, these greatly assisted the moderation process. Moderators were also grateful for the centres who presented treasury tagged work rather than in plastic folders or bulky files. There were very few cases where moderators were unable to support the rank order of candidates as determined by the centre.

Section A

The vast majority of candidates met the requirement to cover pulse rate, blood pressure, body temperature and at least two of the three lung function tests named in the specification, i.e. tidal volume, vital capacity and/or peak flow in this section.

This section produced some detailed accounts with very clear descriptions of how the different tests are performed to measure physiological status. Accurate accounts are those that could be easily replicated from the given description.

A number of candidates described a variety of methods for a single type of measurement, e.g. using different types of thermometer for body temperature. This is not necessary and candidates should include only the method actually used. Some accounts described using mercury thermometers to measure body temperature. The use of this type of thermometer is now inappropriate on health and safety grounds.

Section B

Most candidates gave appropriate accounts covering health risks associated with performing the tests and how these risks may be overcome. More able candidates tended to give more detailed accounts than the weaker candidates. The health risks covered are mainly concerned with microbial transfer and over-exertion during the physical activity.

Candidates also demonstrated a generally sound knowledge of possible errors which may arise when taking the measurements and how these may be reduced. The potential errors when carrying out the measurements mainly concern the incorrect use of equipment, misreading of scales and/or performing the tests for too little time. Stronger candidates again provided more detail in this part of the work, offering clear explanations.

Results from the investigations tended to be recorded appropriately, but weaker candidates often omitted the units of measurement or were inaccurate in their use. Most candidates were able to compare their data with 'norm' range values successfully. The majority of results obtained were within normal ranges and there is no requirement for candidates to seek participants who may give results beyond these values.

Section C

There were fewer examples in this series of candidates using downloaded material from websites or copied from other sources. Some candidates, however, did do so and the information was presented verbatim or with superficial modification from Internet websites. No credit can be gained for plagiarised material. Material used to support findings must be appropriately referenced and be used, i.e. commented upon, by the candidate. Simply presenting referenced verbatim or part-verbatim accounts does not demonstrate understanding. Candidates should describe the structure and functions of the three systems and homeostatic mechanisms in their own words. Candidates could utilise their own results in this section and/or the relevant homeostatic mechanism in section B as a means of demonstrating the appropriate understanding.

Homeostasis and negative feedback was generally well understood and many candidates provided annotated individual diagrams to assist in this.

There is no credit for the inclusion of information on homeostatic mechanisms relating to functions other than those required by the specification, e.g. mechanisms relating to sugar content in the blood and/or osmoregulation are not required.

Section D

Section D is intended as a discriminator of ability. Candidates are able to demonstrate understanding of relevant homeostatic mechanisms and the structure and function of the three named systems by interrelating the activities of these systems. This section of the work remains overall the weakest section, but many high-ability candidates produced high-quality accounts here. These were often effectively presented diagrammatically with colour coding for each body system. It is recognised that many candidates find this section challenging, as it requires that information on the functions of the various systems be brought together. Generally, candidates who meet this requirement by working through the three systems in pairs do not do as well as candidates who are able to offer detailed interrelationships considering the impact collectively of all three systems one upon another. Some candidates' work in this section was very brief and limited as a consequence. This restricts significantly the marks that can be obtained.

Grade boundaries

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