



General Certificate of Education
Advanced Level Examination
June 2011

Health and Social Care

HC13

Unit 13 The Role of Exercise in Maintaining Health and Well-Being

Thursday 9 June 2011 1.30 pm to 3.30 pm

For this paper you must have:

- a 16-page answer book.

Time allowed

- 2 hours

Instructions

- Use black ink or black ball-point pen.
- Write the information required on the front of your answer book. The **Examining Body** for this paper is AQA. The **Paper Reference** is HC13.
- Answer **all** questions.
- Do all rough work in your answer book. Cross through any work that you do not want to be marked.

Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 80.
- You will be marked on your ability to:
 - use good English
 - organise information clearly
 - use specialist vocabulary where appropriate.

Answer **all** questions.

There are 20 marks for each question.

Question 1

Naomi is an adult female who has good aerobic fitness. She trains four times a week to improve both her aerobic and her muscular fitness.

- 0 | 1** Explain what is meant by good aerobic fitness and how it may benefit Naomi. (4 marks)
- 0 | 2** What is the measurement of aerobic fitness? (1 mark)
- 0 | 3** Describe the short-term physiological effects of training on Naomi's body. (6 marks)
- 0 | 4** Name **three** different types of muscular fitness and explain how regular exercise might benefit each one. (9 marks)

Question 2

Paul is overweight and does not exercise. He works very hard and feels constantly stressed. Paul decides to find time to exercise regularly.

- 0 | 5** Discuss, with reference to physiological processes, how exercising regularly may help Paul control his stress.
The quality of written communication will be assessed in this question. (8 marks)
- 0 | 6** Discuss, with reference to physiological processes, how exercising regularly may help Paul control his weight.
The quality of written communication will be assessed in this question. (8 marks)
- 0 | 7** Explain why it is important that Paul sees his GP before he starts to exercise regularly. (4 marks)

Question 3

The following data were obtained from four 27-year-old females.

	Female P	Female Q	Female R	Female S
Body Mass Index (BMI)	29	16	23	34
Peak flow (dm ³ /min)	470	335	480	490
Perceived Exertion (1–20) Gentle Exercise	6	7	3	6
Perceived Exertion (1–20) Strenuous Exercise	15	17	8	19

- 0 8** Compare the four females in terms of Body Mass Index (BMI). (4 marks)
- 0 9** Compare the four females in terms of peak flow measurements. (4 marks)
- 1 0** Compare the four females in terms of perceived exertion scale results. (4 marks)
- 1 1** Describe how peak flow measurements are taken. (4 marks)
- 1 2** Give **one** strength and **one** limitation of assessing fitness using peak flow. (2 marks)
- 1 3** Give **one** strength and **one** limitation of assessing fitness using perceived exertion scales. (2 marks)

Question 4

Lucy has osteoporosis and hypertension. She also has a high risk of a cerebral infarction (stroke) occurring. Having seen her GP Lucy starts a regular exercise programme.

- 1 4** Explain how regular exercise may help to improve or regulate Lucy's osteoporosis and hypertension and may also help prevent her suffering a cerebral infarction. Refer to physiological processes in your answer. The quality of written communication will be assessed in this question. (11 marks)
- 1 5** Briefly describe a suitable regular exercise programme for Lucy. (5 marks)
- 1 6** Give **two** common barriers to regular exercise and suggest **one** different way to overcome each barrier. (4 marks)

END OF QUESTIONS

There are no questions printed on this page