

Centre Number						Candidate Number				
Surname										
Other Names										
Candidate Signature										



General Certificate of Education  
Advanced Level Examination  
**Specimen Paper**

# Health and Social Care

## HSC07

### Unit 7 Food and Fitness

2012

You will need no other materials.

#### Time allowed

- 2 hours

#### Instructions

- Use black ink or black ball-point pen.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- You must answer the questions in the space provided. Do not write outside the box around each page or on blank pages.
- Do all rough work in this book. Cross through any work that you do not want to be marked.
- If you need extra paper, use the Supplementary Answer Sheets.

#### Information

- The maximum mark for this paper is 80.
- The marks for questions are shown in brackets.

Version 1

For Examiner's Use	
Examiner's Initials	
Question	Mark
1	
2	
3	
4	
TOTAL	

## HSC07

Answer **all** questions in the spaces provided.

**1** Diane is a 25-year-old obese female with a low  $\text{VO}_2$  max. She has a very busy lifestyle and eats out most days. She finds work very stressful, time-consuming and feels tired all the time. Diane has decided to rethink her way of living and decides to start exercising to improve her aerobic fitness and also look at her diet.

**1(a)** Explain what  $\text{VO}_2$  max measures, referring to Diane's  $\text{VO}_2$  max. Include in your answer the units of measurement.

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(5 marks)

**1(b)** What is meant by aerobic fitness?

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(3 marks)

- 1(c)** Diane's diet consists of a high proportion of carbohydrate foods. Describe how Diane's body will effectively use these carbohydrates during exercise. Refer to physiological processes in your answer.

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(5 marks)

- 1(d)** Name **two** functions of iron in the body and describe the effect of iron deficiency in the body.

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(5 marks)

**1(e)** State **two** sources of iron that Diane may wish to consider adding to her diet.

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(2 marks)

**2(a)** Explain how regular exercise can contribute to the emotional and social well-being of individuals.

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(6 marks)

20

- 2(b)** With reference to physiological processes, explain the benefits of warm-down programmes after strenuous exercise.

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(5 marks)

- 2(c)** Discuss the extent to which regular exercise may help combat the effects of ageing. Refer to physiological processes in your answer.

The quality of written communication will be assessed in this question.

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(9 marks)

**3**

	Adults Measured			
Measurement	Adult W	Adult X	Adult Y	Adult Z
Peak flow (dm <sup>3</sup> /min)	330	508	452	550
Body Mass Index (BMI)	17	31	22	23
Resting Pulse Rate (BPM)	64	68	84	70
Recovery time to resting pulse after identical exercise (mins)	7	4	7	5

Analyse the data and compare the four adult males in terms of:

**3(a)**

[illegible]

(4 marks)

**3(b)**

[illegible]

(4 marks)

**3(c)** resting pulse rates

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(4 marks)

**3(d)** recovery times after identical exercise.

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(4 marks)

**3(e)** Give **one** strength and **one** limitation of using BMI.

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(2 marks)

**3(f)** Name the system and the process used to help the body maintain a stable environment.

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(2 marks)

**4** Working long hours is a common barrier to an individual taking regular exercise.

**4(a)** Give **three** other common barriers to individuals taking part in regular exercise. For each barrier suggest one different way it might be overcome.

Barrier 1 .....

Might be overcome by .....

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Barrier 2 .....

Might be overcome by .....

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Barrier 3 .....

Might be overcome by .....

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(6 marks)



- 4(b)** Stephen is an adult male who has been diagnosed with hypertension and type 1 diabetes. Discuss how regular exercise might improve or regulate Stephen's hypertension and type 1 diabetes.  
The quality of written communication will be assessed in this question.

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(9 marks)

- 4(c)** Outline a suitable exercise and diet programme that is safe for Stephen to take up.

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(5 marks)

**END OF QUESTIONS**

**There are no question printed on this page**

**DO NOT WRITE ON THIS PAGE  
ANSWER IN THE SPACES PROVIDED**