



NCFE CACHE Level 3 Extended Diploma in Health and Social Care (Adults) (Northern Ireland) (603/5355/7)

NCFE CACHE Technical Level 3 Extended Diploma in Health and Social Care (601/8435/8)

Unit title: Anatomy and physiology for health and social care

Assessment code: HSCNI/SAE
Paper number: P001444

Tuesday 18 January 2022

9.00 am–10.30 am

Time allowed: 1 hour 30 minutes

Learner instructions

- Use black or blue ink. If you write your answers in pencil they will not be marked.
- Answer **all** questions.
- You must write your responses in the spaces provided.
- You may do rough work in this answer book. Cross through any work you do not wish to be marked.
- All of the work you submit **must** be your own.

Learner information

- The marks available for each question are shown in brackets.
- The maximum mark for this paper is 80.

Please complete the details below clearly and in BLOCK CAPITALS.

Learner name _____

Centre name _____

Learner number

Centre number

To be completed by the Examiner			
Question	Mark	Question	Mark
1 (a)		3 (a)	
1 (b)		3 (b)	
1 (c)		3 (c)	
1 (d)		3 (d)	
1(e)		4 (a)	
2 (a)		4 (b)	
2 (b)		4 (c)	
2 (c)		4 (d)	
2 (d)		4 (e)	
TOTAL MARK			

Do not turn over until the invigilator tells you to do so.

Section A

This section has a possible 20 marks.

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

1 (a) Height is used to calculate an individual's Body Mass Index (BMI).

What **other** measurement is used to calculate BMI?

[1 mark]

1 (b) Biological sex, hormones and age can affect an individual's Body Mass Index (BMI).

Identify **three (3) other** factors that can affect BMI **and** describe how **one (1)** of the factors you have identified can affect BMI.

[6 marks]

Factor 1 _____

Factor 2 _____

Factor 3 _____

Description of how a factor can affect BMI.

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1 (c) Explain the process of glucoregulation.

[6 marks]

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Question 1 continues on the next page.

1 (d) Identify the primary organ involved in glucoregulation **and** explain the structure of this organ.

[4 marks]

Organ _____

Explanation of the structure _____

1 (e) The kidney is a component of the excretory (urinary) system.

Identify the **three (3) other** components of the excretory (urinary) system.

[3 marks]

1 _____

2 _____

3 _____

Section B

This section has a possible 20 marks.

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

Amelia has recently attended a well woman clinic for a health check-up. Following tests, Amelia was informed that she has Human Immunodeficiency Virus (HIV).

- 2 (a)** Which of the following is the name given to a bacterium, virus, or other microorganism that can cause disease?

[1 mark]

- A** Antibody
- B** Antigen
- C** Lymph
- D** Pathogen

Answer _____

Question 2 continues on the next page.

2 (b) Discuss the likely effects of Human Immunodeficiency Virus (HIV) on Amelia’s wellbeing.

[12 marks]

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2 (c) Describe the location **and** structure of the thymus.

[3 marks]

Question 2 continues on the next page.

2 (d) B cells and phagocytes are types of lymphocytes.

Identify the **other** type of lymphocyte **and** explain the function of this lymphocyte. **[4 marks]**

Identification of other type of lymphocyte _____

Explanation of function of this lymphocyte _____

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Section C

This section has a possible 20 marks.

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

Jacob has been experiencing problems with his skin recently. Following a referral to a dermatologist, Jacob was diagnosed as having eczema.

3 (a) Discuss the likely effects of eczema on Jacob’s wellbeing.

[9 marks]

3 (b) Identify the **three (3)** primary layers of the skin. **[3 marks]**

1 _____

2 _____

3 _____

3 (c) Identify **three (3)** structural components found in the middle layer of skin **and** briefly explain **one (1)** of these structural components. **[4 marks]**

1 _____

2 _____

3 _____

Brief explanation
of one structural
component _____

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3 (d) Identify **three (3)** functions of the skin **and** briefly describe **one (1)** of these functions.

[4 marks]

1 _____

2 _____

3 _____

Brief description
of one function

Please turn over for the next section.

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Section D

This section has a possible 20 marks.

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

4 (a) Discuss the structure and function of long bones within the skeletal system.

[6 marks]

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4 (b) Which structure is part of the axial skeleton?

[1 mark]

- A Femur
- B Humerus
- C Scapula
- D Skull

Answer _____

4 (c) Storage of calcium and production of blood cells are two functions of the skeletal system.

Identify **three (3) other** functions of the skeletal system **and** explain **one (1)** of the functions that you identified.

[5 marks]

1 _____

2 _____

3 _____

Explanation of the function

Question 4 continues on the next page.

4 (d) Fibrous and cartilaginous are two types of joint.

Identify **and** describe the **other** type of joint.

[3 marks]

Joint _____

Description of the joint _____

4 (e) Identify the **three (3)** types of muscle **and** describe **one (1)** of these types of muscle.

[5 marks]

1 _____

2 _____

3 _____

Description of one type of muscle _____

This is the end of the external assessment.

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