



0172-545 MARCH 2019

Level 3 Technicals in Animal Management (Science)

Level 3 Animal Management – Theory exam (2)

If provided, stick your candidate barcode label here.

Monday 11 March 2019
09:30 – 11:30

Candidate name (first, last)

First

Last

Candidate enrolment number


Date of birth (DDMMYYYY)

Gender (M/F)

Assessment date (DDMMYYYY)

Centre number

Candidate signature and declaration*

- If additional answer sheets are used, enter the additional number of pages in this box. 
- Before taking the examination, **all candidates** must check that their barcode label is in the appropriate box. Incorrectly placed barcodes may cause delays in the marking process.
- Please ensure that you staple additional answer sheets to the **back** of this answer booklet, clearly labelling these with your full name, enrolment number, centre number and qualification number in BLOCK CAPITALS.
- All candidates need to use a **black/blue** pen. **Do not** use a pencil or gel pen, unless otherwise instructed.
- If provided with source documents, these documents **will not** be returned to City & Guilds, and will be shredded. Do not write on the source documents.

***I declare that I had no prior knowledge of the questions in this examination and that I will not divulge to any person any information about the questions.**

You should have the following for this examination

- a pen with blue or black ink

General instructions

- Use black or blue ball-point pen.
- The marks for questions are shown in brackets.
- This examination contains 13 questions. Answer **all** questions.
- Answer the questions in the spaces provided. Answers written in margins or on blank pages will **not** be marked.
- Cross through any work you do not want to be marked.



1 State the **two** types of cell division and their role in the body. (4 marks)

2 Define the following terms in relation to chemical reactions.
a) Accuracy. (1 mark)

b) Precision. (1 mark)

3 Name the bases in DNA (Deoxyribonucleic acid). (4 marks)

4 Define the term 'compound' when used in chemistry. (2 marks)

5 Identify the structure and function of Lamellae in compact bone. (2 marks)

6 Explain the difference between the equilibrium constant and the reaction quotient. (4 marks)

7 Explain why cytotoxic waste **must** be segregated from other clinical waste. (4 marks)

8 a) State **four** symptoms of diabetes mellitus.

(4 marks)

b) Why does diabetes mellitus occur?

(2 marks)

9 Explain **two** properties of compounds with ionic bonds.

(4 marks)

10 In guinea pigs, black hair (B) is dominant to brown hair (b) and short hair (S) is dominant to long hair (s). These traits are independent of each other. A male guinea pig with genotype Bbss is crossed with a female guinea pig with genotype bbSs.

a) Using the provided information, complete the Punnet Square below. (2 marks)

b) Explain which **two** genotypes would be crossed to produce offspring with only long brown hair. (4 marks)

11 Explain the function of **each** of the following organelles in an animal cell.

a) Cell membrane.

(2 marks)

b) Nucleus.

(2 marks)

c) Rough Endoplasmic Reticulum (RER).

(2 marks)

12 Explain the procedures for post-surgical wound management.

(4 marks)
