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0171-512 MARCH 2018

**Level 3 Advanced Technical Extended Diploma in Agriculture
(Arable)**

Level 3 Agriculture – Theory exam (2)

If provided, stick your candidate
barcode label here.

**Friday 16 March 2018
13:30 – 15:30**

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 any additional answer sheets are used, enter the additional number of pages in this box.

• Please ensure that you **staple** additional answer sheets to the **back** of this answer booklet, clearly labelling them 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.

• 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 assessment 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 a) State **two** types of organic waste from crop production processes. (2 marks)

b) For **one** of the wastes mentioned in 1a), explain how it can safely be disposed of on the farm. (1 mark)

2 a) What does the acronym NVZ stand for? (1 mark)

b) Describe **four** constraints put on a farmer in an NVZ. (4 marks)

3 a) State **one** facility for storing inorganic waste on a farm. (1 mark)

b) Describe **two** methods of managing inorganic waste on a farm. (2 marks)

c) Describe **one** way of reducing the amount of organic waste stored on a farm. (1 mark)

4 a) In relation to landscapes, define the following terms.

i) Biotic.

(1 mark)

ii) Abiotic.

(1 mark)

b) Name **one** example of a biotic factor.

(1 mark)

c) Name **one** example of an abiotic factor.

(1 mark)

d) Explain **two** ways of improving habitat diversity on an arable farm.

(4 marks)

5 Explain **four** consequences of ignoring The Nitrates Directive legislation. (4 marks)

6 Describe **four** methods of reducing drift when spraying with a hydraulic boom sprayer. (4 marks)

7 a) What does the acronym SSSI stand for? (1 mark)

b) State **one** feature of an SSSI. (1 mark)

8 a) State **two** important safety features which are found on a pesticide label. (2 marks)

b) Describe **two** ways modern technology has improved the accuracy of applying pesticides. (4 marks)

9 a) When slug pelleting with an All-Terrain Vehicle (ATV), state **one** effect of i) tyre pressures being too high (1 mark)

ii) uneven tyre pressures. (1 mark)

b) Why should a car tyre pressure gauge **not** be used on an ATV with low ground pressure tyres? (2 marks)

10 a) Name **two** types of transmission system of Rough Terrain Telescopic Forklifts (RTFL) that use oil to transmit power. (2 marks)

b) State **two** advantages of the transmission systems named in 10a), in comparison to manual transmission. (2 marks)

11 a) Explain **two** reasons why it is important to keep the boom retracted (closed) on a Rough Terrain Telescopic Forklift (RTFL) when travelling. (2 marks)

b) What safety device is fitted in the cab to help prevent the operator overloading a Rough Terrain Telescopic Forklift (RTFL)? (1 mark)

12 When travelling on steep slopes with an ATV, which is the safest direction of travel? (1 mark)

13 Discuss methods of minimising the environmental impact when fertiliser spreading, including considerations of how to minimise, manage and dispose of waste.

(12 marks)
