



0171-512 JUNE 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 15 June 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 15 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 From a crop production process, name

a) **two** organic wastes

(2 marks)

b) **one** inorganic waste

(1 mark)

c) **one** hazardous waste.

(1 mark)

2 Explain how to minimise the effects on the environment when spreading organic waste.

(8 marks)

3 a) What is the living part of a landscape or eco-system technically known as? (1 mark)

b) What is the non-living part of a landscape or eco-system technically known as? (1 mark)

c) Farming landscapes change continuously. Describe **two** possible ecological effects of liming on agricultural soils. (4 marks)

4 State **two** pieces of legislation or policy that have had an ecological effect, changing the agricultural landscape over time. (2 marks)

5 Explain **two** advantages of incorporating a beetle bank in to an arable field. (2 marks)

6 A farmer's Biodiversity Action Plan (BAP) states that species rich hedges will only be cut in February.

Explain **two** reasons why this is good for the hedgerow habitat.

(2 marks)

7 Describe **four** factors that could cause striping in a growing crop, when using a twin spinning disc fertiliser spreader.

(4 marks)

8 When spraying, how would the work rate be affected when increasing the dilution rate from 100 litres/ha to 200 litres/ha?

(2 marks)

9 a) What does the acronym LERAP stand for? (1 mark)

b) If a farmer is in the LERAP scheme, what may it allow them to do? (1 mark)

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

11 a) State **three main** components of a hydrostatic transmission system on a Rough Terrain Fork Lift (RTFL). (3 marks)

b) What is the **main** advantage of hydrostatic transmission over mechanical gear transmission? (1 mark)

12 When cornering slowly with an All-Terrain Vehicle (ATV) without a differential, why is it necessary for the driver to transfer their body weight to the outside wheel? (3 marks)

13 Name **one** setting that could affect an ATV's stability at high speed and traction at low speed. (1 mark)

14 Apart from engine oil, water and diesel, list **four** other checks to be made on a Rough Terrain Telescopic Forklift (RTFL), particularly relevant to travelling on the road. (4 marks)
