



0171-508 MARCH 2020

**Level 3 Advanced Technical Extended Diploma in Agriculture
(Farm Mechanisation)**

Level 3 Agriculture – Theory exam (2)

If provided, stick your candidate
barcode label here.

**Tuesday 3 March 2020
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 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 **four** reasons why shear bolts might frequently break on a machine. (4 marks)

2 a) Explain why a differential is fitted to a tractor. (2 marks)

b) Explain why a differential lock is fitted to a tractor. (2 marks)

3 Describe **two** features of closed centre hydraulics. (4 marks)

4 State **four** desirable characteristics of diesel engines, when compared to petrol engines, when used in tractors. (4 marks)

5 Explain **two** advantages of using an oscillating spout fertiliser spreader over a twin spinning disc fertiliser spreader. (4 marks)

6 a) Where can information regarding the size of an aquatic buffer zone, for a particular pesticide, be found? (1 mark)

b) What is the reason for having pesticide aquatic buffer zones? (1 mark)

c) How can aquatic buffer zones be reduced? (1 mark)

10 State **six** ways to help prevent a rough terrain telescopic forklift (RTFL) from overturning, when loading a lorry with grain. (6 marks)

11 a) Which way should the operator lean, when cornering at low speeds with an ATV with no differential? (1 mark)

b) Explain **two** reasons for your answer in 11a). (4 marks)

12 When using a rough terrain telescopic forklift (RTFL), the safe load indicator stops working. Describe **three** actions that should be taken. (3 marks)
