



0171-514 MARCH 2022

**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 1 March 2022
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 9 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 **three main** electrical components in the charging system of a land-based power unit. (3 marks)

b) What is the function of **each** of the components stated in 1a)? (3 marks)

2 Explain **three** effects of an auxiliary drive belt/fan belt slipping on the engine of a land-based power unit. (6 marks)

3 State **six** advantages of using a Global Positioning System (GPS) on a land-based power unit. (6 marks)

4 Describe **two** consequences of driving a land-based power unit with the air filter warning light illuminated. (4 marks)

5 State **five** types of information recorded on a completed service sheet for a land-based power unit. (5 marks)

6 Describe **three** reasons why diesel engines, rather than petrol engines, are usually used in land-based power units.

(6 marks)

7 State **five** operator settings that can be undertaken from the tractor cab, to reduce wheel slip when using 3-point linkage equipment.

(5 marks)

- 8 a) Other than Personal Protective Equipment (PPE), list **five** facilities that should be provided in a workshop for the health and safety of employees. (5 marks)

- b) For **each** of the facilities listed in 8a), give **one** different reason why they aid in the health and safety of employees. (5 marks)
