0171-512 MARCH 2018
Level 3 Advanced Technical Extended Diploma in Agriculture (Arable)
Level 3 Agriculture – Theory exam (2)

Friday 16 March 2018
13:30 – 15:30

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.

If provided, stick your candidate barcode label here.

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
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)
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a) State **one** facility for storing inorganic waste on a farm.  

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

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

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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.  

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

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

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

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

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Discuss methods of minimising the environmental impact when fertiliser spreading, including considerations of how to minimise, manage and dispose of waste. (12 marks)