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 into 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)
15 Discuss methods of minimising the environmental impact when spraying pesticides, including considerations of how to minimise, manage and dispose of waste. (12 marks)