0171-506 JUNE 2018
Level 3 Advanced Technical Extended Diploma in Agriculture
(Mixed Farming)
Level 3 Agriculture – Theory exam (2)

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 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. What does the term 'permanent pasture' mean? (1 mark)

2. State two benefits of including Meadow Fescue in a grass seed mixture. (2 marks)

3. A farmer is planning a fertiliser regime for a grass ley.
   a) State five factors that the farmer would need to take into account. (5 marks)

   b) For each factor stated in 3a), explain why the farmer should take them into account. (5 marks)
4  State **two** reasons why Nitrogen is important for grass crops.  

5  Give **three** reasons why the grass shown in Figure 1 affects the productivity of the sward.
6 Explain **three** ways that the time of cutting grass will affect grass silage. (3 marks)

7 Explain **three** ways of promoting Lactobacillus bacteria in clamped grass silage. (3 marks)

8 List **four** causes of an ATV turning over whilst in use. (4 marks)
9  

a) Name the **four** stages of the 4 stroke cycle for a diesel engine.  

b) Describe the **four** stages of the 4 stroke cycle for a diesel engine.
10 a) State two advantages of a torque converter compared to manual transmission. (2 marks)

b) Name the three major parts of a torque converter. (3 marks)

11 What is the correct tyre pressure for an ATV being used on rough terrain? (1 mark)

12 Explain one advantage and one disadvantage of having a differential on an ATV. (2 marks)
A livestock farmer wishes to increase his productivity and efficiency in one grass field, which is used for grazing and silage.

Another second steep grass field on the farm has become unproductive. The farmer wishes to improve this without a complete re-seed. The farm also owns an ATV which is under used.

Discuss methods that could be used to increase the production of the fields. Give examples of where the ATV could be utilised, the risks that may be involved and how to overcome them. (12 marks)