



0174-512 JUNE 2017

Technicals in Forestry and Arboriculture

Level 3 Forestry and Arboriculture – Theory Exam (1)

If provided, stick your candidate barcode label here.

Wednesday 21 June 2017
13:30 – 15:30

Candidate name (first, last)

First [Grid of boxes for name]

Last [Grid of boxes for name]

Candidate enrolment number

[Grid of boxes for enrolment number]

Date of birth (DDMMYYYY)

[Grid of boxes for date of birth]

Gender (M/F)

[Grid of boxes for gender]

Assessment date (DDMMYYYY)

[Grid of boxes for assessment date]

Centre number

[Grid of boxes for centre number]

Candidate signature and declaration*

[Signature line]

If any additional answer sheets are used, enter the additional number of pages in this box. [Grid with 00]

- Please ensure that you staple additional answer sheets to the back of this answer booklet...
• 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...

*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 assessment

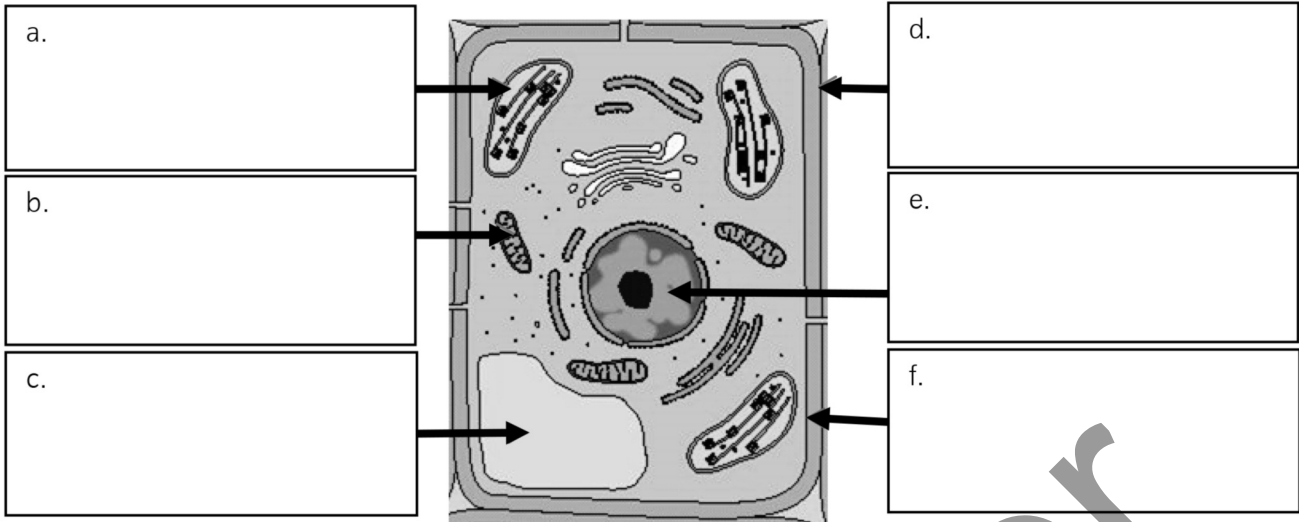
- a pen with blue or black ink

General Instructions

- Use black or blue ballpoint pen.
• The marks for questions are shown in brackets.
• This examination contains 16 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.

See the latest qualification handbook for the 2018 exams have changed. The content sampled will vary from this paper. for the updated test specification.

1 Name **each** of the organelles (a-f) and describe their function. (6 marks)



2 State **two** mandatory safety features on a chainsaw and explain how they protect the operator's hands. (4 marks)

3 State **three** potential environmental impacts associated with stump or brush removal. (3 marks)

4 Describe **three** characteristics of clay soil and how they **each** affect tree growth. (3 marks)



5 a) Describe the function of the Collenchyma cells. (1 mark)

b) Describe the function of the Sclerenchyma cells. (1 mark)

6 For a named land-based machine, describe how it is powered and performs its task. (2 marks)

7 a) Explain how a blocked air filter may affect performance of a two stroke engine. (1 mark)

b) Explain how the fault may be remedied. (1 mark)

8 Describe **two** key points of the Provision and Use of Work Equipment Regulations (PUWER) 1998. (2 marks)

Past paper





11 Name **one** human influence with the potential to affect tree health. (1 mark)

12 a) State **one** biotic pathogen and describe any **four** stages of its lifecycle. (5 marks)

b) For your chosen pathogen in 12 a), describe **two** impacts on the host. (2 marks)

13 Describe **three** ways that knowledge and understanding of lifecycles of biotic pathogens can aid correct identification. (3 marks)

Past paper



14 Describe **two** ways a pathogen or pest can cause secondary infection and for **each** describe how it could be controlled or limited. (4 marks)

15 Name **two** methods of preventing ill health in trees that promote healthy growth. (2 marks)

16 State **two** poor soil conditions or characteristics and describe how they can adversely affect tree growth. (4 marks)

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