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City & Guilds

0174-512 APRIL 2017
Technicals in Forestry and Arboriculture
Level 3 Forestry and Arboriculture – Theory Exam (1)

If provided, stick your candidate barcode label here.

Wednesday 26 April 2017
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. 0 0
- 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 assessment
- 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 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.

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

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1 Name **two** pieces of legislation that are relevant to the use and operation of land based machinery. (2 marks)

2 Describe **two** ways environmental damage can be minimised when operating land based machinery. (2 marks)

3 Explain **three** factors that affect the rate of photosynthesis. (3 marks)

4 Describe **three** features of a good soil **and** how they impact physiological processes. (6 marks)

Past paper

5 Describe **three** methods of improving poor soils conditions. (3 marks)

6 Explain **two** reasons for using the correct bar and chain combination on a chainsaw. (2 marks)

7 The tree you are going to fell has decay in the base. State **two** ways you could alter your felling method **and** explain how they would improve the operation. (2 marks)

Past paper

8 For the following abiotic disorders and human influences, explain **two** impacts on tree health for each.

a) Road salt. (2 marks)

b) Lighting. (2 marks)

c) Mechanical damage. (2 marks)

d) Frost. (2 marks)

9 State the common name of **each** of the following in the UK.

a) Invertebrate pest. (1 mark)

b) Tree decay fungus. (1 mark)

c) Bacteria that affects trees. (1 mark)

Past paper

10 State **three** types of environmental impact that might occur during chainsaw use. (3 marks)

11 Name **four** methods of pest and disease control **and** give an example for each. (4 marks)

12 Describe **one** way **each** of the following methods promote tree health and help prevent attack from pathogens.

a) Irrigation. (1 mark)

b) Feeding. (1 mark)

c) Tree shelters. (1 mark)

Past paper

13 You need to carry out some sanitation felling for disease control in a woodland. Discuss considerations you should address in this situation and justify the actions you would take. (12 marks)

Past paper

14 Name **three** meristematic regions in a tree. (3 marks)

15 A two-stoke machine will turn over but not start. Explain **two** reasons why this might happen. (2 marks)

16 State **one** pathogen and describe **two** impacts it has on the host. (2 marks)

Past paper

End of assessment