



## 0174-502 MARCH 2022 Level 3 Technicals in Horticulture

Level 3 Horticulture – Theory Exam (1)

- Before taking the examination, **all candidates** must check that their barcode label is in the appropriate box. Incorrectly placed barcodes may cause delays in the marking process.
- Please ensure that you staple additional answer sheets to the **back** of this answer booklet, clearly labelling these 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, unless otherwise instructed.
- 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 examination 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 10 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.

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|-----|--------------------|---|--------------|---|
| 1   | a)                 | State <b>four</b> features of a plant that identify it as being a monocotyledon.  | (4 marks)    |   |
|     | b)                 | Describe the <b>main</b> difference between the seeds of a gymnosperm <b>and</b><br>an angiosperm.                                    | (2 marks)    |   |
| 2   | Exp<br>follc<br>a) | lain how a characteristic or adaptation of a plant allows it to survive in <b>each</b> of the<br>owing conditions:<br>Polluted sites. | (2 marks)    |   |
|     | b)                 | Maritime/coastal conditions.  | (2 marks)    |   |
|     | C)                 | Shade.  | (2 marks)    |   |
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| 3 a)     | Name <b>two</b> methods of protecting a newly planted tree from damage.                                       | (2 mark     |
| b)       | Give <b>one</b> advantage and <b>one</b> disadvantage for <b>each</b> of the protection methods named in 3a). | (4 mark     |
|          |   |             |
|          |   |             |
| 4 a)     | Give <b>two</b> advantages of using two-stroke spark ignition machinery.                                      | (2 marl     |
|          |   |             |
| b)       | Explain how <b>two named</b> features on a spark ignition grass trimmer would contribute to its safe use.     | (4 mark     |
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| 5   | a)    | State <b>two</b> ways to identify low oil pressure in four-stroke spark ignition machinery.          | (2 marks)    |
|     | b)    | Name <b>two</b> pre-start checks related to engine oil in a four-stroke engine.                      | (2 marks)    |
| 6   | a)    | List <b>four</b> symptoms that may indicate the presence of a viral disease in plants.               | (4 marks)    |
|     | b)    | Summarise <b>five</b> different stages of the infection cycle of a viral disease spread by an aphid. | (5 marks)    |
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| Explain <b>one</b> reason why a translocated herbicide is effective for use against perennial weeds.  | (2 marks  |
| Summarise <b>five</b> distinct biosecurity measures that horticulturists can implement to minimise the spread of pests, diseases and weeds when importing plant material. | (5 mark:  |
|   |   |
|   |   |
| State <b>four</b> factors that <b>must</b> be considered when assessing risks to the environment during pesticide application.  | (4 mark   |
|   |   |
|   | Explain one reason why a translocated herbicide is effective for use against perennial weeds. |

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| Discuss how a range of <b>site factors</b> can result in potential plant disorders and consider measures that can be taken to alleviate them. | (12 m |
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