

0174-508 March 2022

Level 3 Advanced Technical Extended Diploma in Horticulture (1080)

Level 3 Horticulture – Theory exam (2)

Question 1

State the botanical name of **two** species of trees or shrubs that are typically coppiced. (2 marks)

Acceptable answer(s):

One mark for any of the below to a maximum of two marks:

- *Cornus alba* (1)
- *Cornus sanguinea* (1)
- *Cornus sericea* (1)
- *Corylus avellana* (1)
- *Salix alba* (1)
- *Sambucus nigra* (1)

Accept any other suitable answer.

Question 2

Identify **three** areas on plants where adventitious shoots may be produced. (3 marks)

Acceptable answer(s):

One mark for any of the below to a maximum of three marks:

- *Stem internodes* (1)
- *Leaves* (1)
- *Roots* (1)
- *Callus tissue* (1)

Question 3

- a) Give **two** restrictions the Wildlife and Countryside Act 1981 has placed upon pruning hedges. (2 marks)
- b) Summarise **two** situations that allow pruning to take place even though restrictions are present. (2 marks)

Acceptable answer(s):

a)

One mark for any of the below to a maximum of **two** marks:

- The Act restricts pruning hedges so as not to 'intentionally take, damage or destroy the nest. (1)
- To intentionally kill, injure or take chicks or adults birds. (1),
- Intentionally take or destroy any eggs. (1)
- Pruning should ideally not take place between 1st March to 31st August. (1)
- Hedges should be checked for nests before any pruning is carried out. (1)

b)

One mark for any of the below to a maximum of **two** marks:

- If the action taken was necessary to preserve public health and safety (1)
- If the action was necessary to prevent serious damage to livestock, crops (etc) (1)
- If the action was an incidental result of a lawful operation which could not have reasonably be avoided (1)

Question 4

- a) Summarise **two** ways a right of easement might enable pruning operations to be carried out on a large tree. (2 marks)
- b) Describe **one** detrimental effect that trees may have on cultivated areas. (2 marks)

Acceptable answer(s):

a)

One mark for any of the below to a maximum of **two** marks:

- An easement might provide the client with the right to access to the tree. (1)
- Use someone else's land to access the tree. (1)
- Enable them access to a tree with vehicles /or larger machinery. (1)
- To remove arisings over someone else's land. (1)

b)

Up to a maximum of **two** marks:

- Cast shade over a crop / garden area (1) which causes poor growth of plants. (1)
- Absorbs large amounts of water from the growing area, (1) causing reduced growth or death of plants beneath. (1)
- Surface roots of trees (1) can cause direct damage to lawns and grassed areas. (1)

Accept any other suitable answer.

Question 5

Summarise **four** social benefits that 'green spaces' in the urban environment can provide to a community. (4 marks)

Acceptable answer(s):

One mark for any of the below to a maximum of **four** marks:

Green spaces can;

- Provide areas for recreation, sport and children's play. (1)
- Increase house prices and desirability of an area. (1)
- Create spaces for community events. (1)
- Provide spaces that are less polluted and noisy. (1)
- Add to the aesthetic appeal of an area. (1)
- Provide habitats for wildlife. (1)

Accept any other suitable answer.

Question 6

Using the **full title**, name **two** representative organisations or professional bodies associated with the horticultural sector. (2 marks)

Acceptable answer(s):

One mark for any of the below to a maximum of **two** marks:

- British Association of Landscape Industries
- Horticulture Trades Association
- Royal Horticultural Society
- Greenkeepers Training Committee
- Chartered Institute of Horticulture
- Grounds Management Association
- Association of Professional Landscapers
- Perennial
- British and international golf greenkeepers association.

Accept any other suitable answer.

Do not accept abbreviations.

Question 7

Compare **five** differences between subcontractors **and** employees within the horticulture industry. (5 marks)

Acceptable answer(s):

One mark for any of the below to a maximum of **five** marks:

- *Subcontractors are responsible for their own National Insurance and tax whilst employees have tax deducted (PAYE) by their employer (1).*
- *Subcontractors decide who they work for and when, they can have numerous clients. Employees work for specific employers (1).*
- *Subcontractors take financial responsibility for work they undertake and are responsible for its success or failure. Employees do not have financial responsibility for the work they undertake (1).*
- *Subcontractors have few legal employment rights whilst employees are protected by employment law (1) (h&s and equality laws still apply).*
- *Subcontractors do not get holiday or sick pay when they're not working (1).*
- *Subcontractors are responsible for providing their own tools and equipment including PPE, employers would be expected to provide these for employees (1).*
- *Subcontractors can hire someone else to do their work, whilst employees cannot (1).*
- *Subcontractors are responsible for fixing any mistakes in their own time whilst ordinarily employees would not (1).*
- *A subcontractor generally gets paid a fixed price for the work they do irrespective of how long it takes. They may put in bids or give quotes to get work and submit invoices for the work that they have done, employees receive a wage and possibly bonuses (1).*

Question 8

Explain **three** reasons why quality management systems are important to a horticultural business. (6 marks)

Acceptable answer(s):

Up to two marks for each explanation, to a maximum of **six** marks.

- To keep employees up to date with legislative changes (1) which can avoid potential fines. (1)
- To comply with British standards (1) which can maintain a consistent standard across the industry. (1)
- To meet client expectations (1) so that potential complaints are avoided. (1)
- Tenders for certain contracts can be submitted (1) which can increase revenue for the business. (1)

Accept any other acceptable example

Question 9

List **four** items that can depreciate in a horticultural business. (4 marks)

Acceptable answer(s):

One mark for any of the below to a maximum of **four** marks:

- Vehicles (1)
- Machinery (1)
- Trailer (1)
- Tools and equipment (1)
- Office equipment (1)

Accept any other suitable answer.

Question 10

Explain **one** reason why **each** of the following records **must** be kept for a horticultural business.

- a) Basic account records. (2 marks)
- b) Invoices and sales records. (2 marks)
- c) Purchase order records. (2 marks)

Acceptable answer(s):

Up to **two** marks each, to maximum of **two** marks:

- a)
 - *It is a legal requirement to pay tax (1) as accurate records can authenticate an amount of tax that is being paid and can help to determine the amount of tax to be paid for the following year. (1)*
- b)
 - *In order for there to be a record of how much a business has been paid (1) while confirming that the work actually took place. (1)*
- c)
 - *To gain approval for the purchase of items required by the business (1) and provide a tracking process for these items or services. (1)*

Accept any other suitable answer.

Question 11

State **three** contingency factors that should be considered when quoting for a hard-landscaping project. (3 marks)

Acceptable answer(s):

One mark for any of the below to a maximum of **three** marks:

- Inclement weather such as rain, snow or frost (1)
- Unforeseen difficulties with excavation such as large stones (1)
- Damaging services (1)
- Delays with supplies (1)
- Ground contamination (1)
- Soft ground (1)

Any other suitable answer

Question 12

Summarise **five** potential sources of waste when constructing horizontal landscape surfaces. (5 marks)

Acceptable answer(s):

One mark for any of the below to a maximum of **five** marks:

- Waste from over ordering of materials. (1)
- Breakages of materials due to poor handling. (1)
- Theft of materials due to poor storage. (1)
- Cement not setting correctly due to adverse weather conditions. (1)
- Inappropriate use of man power resources (1)
- Materials can be wasted if they are exposed to adverse weather. (1)

Accept any other suitable answer.

Question 13

A start-up horticultural enterprise wishes to create a customer base and employ staff to offer a range of services.

Discuss the range of issues that should be considered before trading starts. (12 marks)

Indicative content

- Business plan to see if it is viable and be supported by other stakeholders
- Financial support for additional costs such as bank loan or investors
- Suppliers of goods and services, can they cope with increased capacity
- Representative organisations and professional bodies.
- Regulatory bodies
- Competitors, competitor analysis ie direct and indirect competitors
- Identifying new customers, size of market i.e. value of sales, number of customers
- Marketing strategies to promote the business
- Identify the legal structure of the business
- Purchase of physical resources such as equipment, machinery, offices etc.
- New employees

Band 1: 1-4 marks

A basic understanding of the topic with limited awareness of legal structures, organisations and business type. Few or no links made between legislation and trade. To access the higher marks in the band, discussion is supported with a relevant example.

Band 2: 5-8 marks

A good understanding of the topic with an awareness of legal structures, organisations and business type. Some links made between legislation and trade. Good examples of management systems and record keeping. To access the higher marks in the band, discussion is supported with a range of relevant examples.

Band 3: 9-12 marks

A thorough understanding of the topic with a fully developed discussion of the awareness of legal structures, organisations and business. A wide range of specific and appropriate examples are used to support the discussion. Consistent links made between legislation and trade. To access the higher marks in the band, a comprehensive range of examples have been applied (possibly from case studies).

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