

0174-37 Level 3 Advanced Technical Extended Diploma in Horticulture (1080)

0174-008/508 Level 3 Horticulture – Theory Exam (2)

March 2019

1	<p>a) Under the Highways Act 1980, for what reasons is an occupier of the land required to lop or cut hedges, trees or shrubs? (2 marks)</p> <p>b) How long after the service of notice, does the occupier have to complete this? (1 mark)</p>	
	Acceptable answer(s)	Max mks
	<p>a)</p> <p>Where a hedge, tree or shrub overhangs a highway or any other road or footpath to which the public has access so as to</p> <ul style="list-style-type: none"> • endanger or obstruct the passage of vehicles, pedestrians or horses, (1) • or interferes with the view of drivers of vehicles (1) • trees in a diseased or dangerous condition. (1) <p>b)</p> <ul style="list-style-type: none"> • 14 days. (1) 	<p><i>1 mark for each answer, up to a maximum of 2 marks.</i></p> <p>3</p>
2	<p>For what reasons could tree roots have detrimental effects on</p> <p>a) Footpaths? (1 mark)</p> <p>b) Surface and drainage systems? (1 mark)</p>	
	Acceptable answer(s)	Max mks
	<p>a)</p> <ul style="list-style-type: none"> • Causing heave on footpaths. (1) • Causing a trip hazard. (1) <p>b)</p> <ul style="list-style-type: none"> • Blocking drains. (1) • Obstructing water courses. (1) 	<p><i>1 mark for each answer, up to a maximum of 1 mark</i></p> <p><i>1 mark for each answer, up to a maximum of 1 mark.</i></p> <p>2</p>

	<ul style="list-style-type: none"> • Directors have the responsibility to sign off the Health and Safety policy and ensure that policy is adhered to. (1) • Directors have a personal responsibility to ensure that matters of Company Law are adhered to. (1) • Directors can be held personally liable for non-filing of Companies House returns and other infringements of law conducted by a company. (1) 		
5	<p>A Private Limited company's annual accounts are prepared from the financial records at the end of the financial year.</p> <p>a) Which two accounts must be provided? (2 marks)</p> <p>b) Specify what information each should contain. (2 marks)</p>		
	Acceptable answer(s)	Guidance	Max mks
	<p>a)</p> <ul style="list-style-type: none"> • A balance sheet. (1) • A profit and loss account. (1) <p>b)</p> <ul style="list-style-type: none"> • A balance sheet shows the value of everything the company owns, owes and is owed on the last day of the financial year. (1) • A profit and loss account shows the company's sales, running costs and the profit or loss it has made over the financial year. (1) 	<p><i>1 mark for each answer, up to a maximum of 2 marks.</i></p> <p><i>1 mark for each answer, up to a maximum of 2 marks.</i></p>	4
6	<p>a) Describe four socioeconomic benefits of the professional horticulture industry. (4 marks)</p> <p>b) Give three reasons for regional variations in the number of horticulture businesses in the UK. (3 marks)</p>		
	Acceptable answer(s)	Guidance	Max mks
	<p>a)</p> <ul style="list-style-type: none"> • Horticulture contributes significantly (~£9 billion) to the UK economy each year as an industry. (1) • Employs c. 300,000 people. (1) • Provides opportunity for enterprise. (1) • Improves health and well-being. (1) • Improves community spirit. (1) <p>b)</p> <ul style="list-style-type: none"> • Climatic factors will restrict the growth of some crops in colder areas. (1) • Different types of soils that restrict types of plants grown. (1) • Proximity to markets would dictate the profitability of some crops due to transport costs. (1) • Traditional industries in some areas e.g. glasshouse 	<p><i>1 mark for each answer, up to a maximum of 4 marks.</i></p> <p><i>Accept any other suitable answers provided.</i></p> <p><i>1 mark for each answer, up to a maximum of 3 marks.</i></p> <p><i>Accept any other suitable answers provided.</i></p>	7

	<p>industry in Sussex, West Midlands and Clyde Valley, vegetable growing in East Anglia, Fruit in Kent. (1)</p> <ul style="list-style-type: none"> • Availability of labour related to proximity to urban areas. (1) • Differences in disposable income dependant on the area. (1) 		
7	Describe two characteristics of a sub-contractor in a professional horticulture business. (2 marks)		
	Acceptable answer(s)	Guidance	Max mks
	<ul style="list-style-type: none"> • Sub-contractors work on a contractual basis. (1) • They offer a particular set of skills which they perform for customers. (1) • They form agreements with the contractor, not with the customer. (1) • They may not have the same employee benefits as a full time member of staff. (1) 	<p><i>1 mark for each answer, up to a maximum of 2 marks.</i></p> <p><i>Accept any other suitable answers provided.</i></p>	2
8	Summarise four potential consequences of having a 'negative cash flow'. (4 marks)		
	Acceptable answer(s)	Guidance	Max mks
	<ul style="list-style-type: none"> • You don't have enough money to pay your bills. (1) • You are in danger of being overdrawn, and you will need to find money to cover your overdrafts. (1) • Danger of being in serious debt. (1) • Danger of making redundancies. (1) • You may need to take out a loan. (1) • You can be taken to court for monies owed. (1) • Go out of business. (1) 	<p><i>1 mark for each answer, up to a maximum of 4 marks.</i></p> <p><i>Accept any other suitable answers provided.</i></p>	4
9	For a named sector in the horticultural industry, give three examples of how quality systems are of benefit. (4 marks)		
	Acceptable answer(s)	Guidance	Max mks
	<p><i>Examples:</i></p> <p>Nursery sector (1)</p> <ul style="list-style-type: none"> • Maintain a weed free environment (see weed remove it). (1) • Quality approved supply chain. (1) • Plant passports. (1) • Quarantine new stock. (1) 	<p><i>1 mark for named sector, then up to a maximum of 3 marks for the explanations.</i></p> <p><i>Accept any other suitable answers provided.</i></p>	4

	E.g. Sports turf (1) <ul style="list-style-type: none"> • Measure speed of turf surface. (1) • More revenue for golf club/sports pitch. (1) • Better reputation for golf club/sports pitch. (1) 		
10	Describe two ways in which horticultural suppliers might ensure continuation of supply to their customers. (4 marks)		
	Acceptable answer(s)	Guidance	Max mks
	Eg Grower/Nursery <ul style="list-style-type: none"> • Cropping plan to ensure continuity of supply (1) with example. (1) • Advance orders (1 with example. (1) • Analysis of previous sales data (1) with example. (1) • Ensure seasonal products are available when needed (1) with example. (1) Eg Sports Turf <ul style="list-style-type: none"> • Advanced bookings (1) with example. (1) • Analysis of previous usage data (1) with example. (1) • Ensure turf/seed are available when needed (1) with example. (1) 	<i>Accept any other suitable answers provided.</i>	4
11	a) For a paved patio, how does the type of surface affect run-off? (1 mark) b) State two other considerations when calculating run off from hard surfaces. (2 marks)		
	Acceptable answer(s)	Guidance	Max mks
	a) <ul style="list-style-type: none"> • Riven/smooth. (1) • Flush pointing/dry pointing. (1) • Permeable/impermeable. (1) b) <ul style="list-style-type: none"> • Area of the site. (1) • Average rainfall. (1) • Slope and direction of falls. (1) 	<i>1 mark for each answer, up to a maximum of 1 mark.</i> <i>1 mark for each answer, up to a maximum of 2 marks</i> <i>Accept any other suitable answers provided.</i>	3

12	<p>a) Give one possible problem that can occur on a landscaping site. (1 mark) b) Explain two issues this problem can cause and two measures that can be used to reduce the named problem. (4 marks)</p>		
	Acceptable answer(s)	Guidance	Max mks
	<p>Ground pollution such as oil spills, grey water or contaminants. (1) <i>Issues:</i></p> <ul style="list-style-type: none"> • Contamination of water sources of soil. (1) • Damaging to species of plants and animals. (1) • Health and safety risks to staff on site and members of the public. (1) <p><i>Contingencies:</i></p> <ul style="list-style-type: none"> • Call in specialist waste disposal companies. (1) • Calling environment agency. (1) • Use spill kits if safe to do so. (1) • Cordon off area. (1) <p>Shortage of labour (1) <i>Issues:</i></p> <ul style="list-style-type: none"> • Penalty clauses. (1) • Complaints from clients. (1) • Sequencing problems. (1) • Loss of material or plants left on site. (1) • Health and safety issues. (1) <p><i>Contingencies:</i></p> <ul style="list-style-type: none"> • Plan requirements in advance. (1) • Source appropriate sub-contractors or casual staff for the period required. (1) • Ensure staff availability for the period required. (1) <p>Equipment breakdown on site (1) <i>Issues:</i></p> <ul style="list-style-type: none"> • Causing delays and knock on effects to procedures. (1) • Penalty clauses. (1) • Complaints from clients. (1) • Cost of replacement. (1) • Potential health and safety issues • Sequencing of work issues). (1) <p><i>Contingencies:</i></p> <ul style="list-style-type: none"> • Ensure all equipment is fully maintained and serviced regularly. (1) 	<p><i>a) 1 mark for a possible problem</i></p> <p><i>b) 1 mark for an issue, up to a maximum of 2 marks. 1 mark for a contingency, up to a maximum of 2 marks.</i></p>	5

	<ul style="list-style-type: none"> • Back up sources (e.g. from hire companies) are available. (1) 		
13	<p>Angela has been asked to take over an overgrown playground area and turn it into a community garden. The access paths and paved surfaces need renewing and shrubs and trees need to be cut back to make the area safe for children.</p> <p>Plan the resources e.g. labour, equipment, finance, materials required to undertake this project and discuss the legal requirements to be considered. (12 marks)</p>		
	Acceptable answer(s)	Guidance	Max marks
	<p>Band: 1-4 marks Basic understanding of requirements, including health and safety, site problems and job roles</p> <p>To access the higher band several relevant examples given.</p> <p>Band: 5-8marks Discussion of the planning processes and physical resources required to undertake the project , including trees and shrub work and horizontal landscaping aspects To access the higher marks in this band some evaluation of the possible legal structure and sourcing of resources will be included.</p> <p>Band: 9-12 marks A detailed and clear understanding of the planning and resourcing processes with appropriate examples and accurate and specific detail included. To access the higher marks in this band an evaluation at each stage and the identification of critical control points in the system were identified.</p> <p>Indicative content</p> <ul style="list-style-type: none"> • Survey of site – environmental and physical implications • Risk assessment • Legislation regarding pruning • Planned pruning and maintenance – time of year, pruning techniques, type of wood being cut • Material disposal – hazardous and non-hazardous • Renewal and replacement of horizontal surfaces • Safe working practices • Detrimental effects of trees • Physical and Human resourcing • Tools and equipment appropriate to the task • Customer base 		12

	<ul style="list-style-type: none">• Construction standards and regulations, e.g. CITB card• Relevant legislation to landscaping and tree and shrub work described e.g. COSHH, Public liability insurance, employer liability insurance, planning permission, TPO• Appropriate industry certificate of competence e.g. relevant chainsaw certificate, PA1 and PA6 spraying certificates• Site problems and contingencies• Critical control and quality standards• Work to specification		
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