



Candidate Number:

Candidate Name:

Centre Number/Name:

**RHS LEVEL 3 DIPLOMA IN HORTICULTURE
WRITTEN EXAMINATION**

Thursday 10 February 2005

IMPORTANT – Please read carefully before commencing.

- i) The duration of the papers in Module **F** is **2 hours**.
- ii) Answer **ALL** questions in Section **A**.
- iii) **ALL** questions in Section **A** carry equal marks.
- iv) Write your answers legibly in the spaces provided.
- v) Use metric measurements only.
- vi) Where plant names are required they should include genus, species and where appropriate, cultivar.

Module F

**Ecology and Environment
Resource Management**

Section A - Short Answer Questions

Please turn over/.....

Answer All questions.

**Mark
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Q1 Identify **FOUR** possible consequences of an organisation's lack of commitment towards health and safety.

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Q2 State **FOUR** factors an employer should consider in the preparation of a recruitment interview for an horticultural vacancy.

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Q3 List **FOUR** items of a staff induction programme.

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Please see over/.....

Answer All questions

Q4 State the differences between an estimate and a quotation. **2**

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Q5 Differentiate between capital allowances and depreciation. **2**

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Q6 Explain the meaning of elasticity as used in the marketing services. **2**

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Q7 State what is meant by an 'environmental impact analysis'. **2**

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Please turn over/.....

Answer All questions

Q8 State FOUR effects of exposure to frequent high winds on plants. 2

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Q9 State the possible effects of increasing CO² (carbon dioxide) concentration in the atmosphere. 2

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Q10 State how plant communities respond to environmental stresses. 2

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- ii) Answer **ONE** question from section **B** and **TWO** questions from Section **C**.
- iii) **ALL** questions carry equal marks.
- iv) Write your answers legibly in the answer booklet provided.
- v) Use metric measurements only.
- vi) Where plant names are required they should include genus, species and where appropriate, cultivar.

Module F

Ecology and Environment
Resource Management

Sections B & C

Structured Questions

Please turn over/.....

Section B – Ecology and Environment

Answer **ONE** question from this section.

		Marks
Q1	a) Evaluate the threats opposed to wildlife habits within the UK caused by horticultural practices.	12
	b) Review current conservation policies and initiatives in relation to this threat.	8
Q2	a) Distinguish between a halophyte and a hydrophyte.	4
	b) Describe how NAMED hydrophytes adapt to specific environments.	12
	c) Describe how garden soil can be ameliorated in order to grow hydrophytes.	4

Please see over/.....

Section C – Resource Management

Answer **TWO** questions from this section.

		Marks
Q3	a) State SIX consequences of poor time management.	6
	b) Explain how the principles of effective time management can enable a manager to improve work practices in a NAMED horticultural situation.	8
	c) State the limitations of a computer based time management system.	6
Q4	a) State the main sources of finance available to start up a business.	5
	b) Describe the main elements of a cash flow budget for the first six months of trading with reference to a NAMED horticultural product.	10
	c) Explain how a computer spreadsheet can assist in the management of a cash-flow budget.	5
Q5	a) Describe with examples the elements of an outline marketing plan for a new company in a NAMED sector of horticulture.	8
	b) Explain how a marketing budget can be devised for the new company.	6
	c) Explain how a NAMED trade organisation could support the company.	6
Q6	a) Describe the structure of a staff development plan for a small business in a NAMED section of horticulture.	8
	b) Explain the merits and limitations of the job training.	6
	c) Describe THREE techniques that may be used to evaluate training expenditure.	6



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Module F

**Ecology and Environment
Resource Management**

Section A - Short Answer Questions

Please turn over/.....

Answer All questions.

Marks

Q1 Identify **FOUR** possible consequences of an organisation's lack of commitment towards health and safety. **2**

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Q2 State **FOUR** factors an employer should consider in the preparation of a recruitment interview for an horticultural vacancy. **2**

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Q3 List **FOUR** items of a staff induction programme. **2**

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Please see over/.....

Answer All questions

Q4 State the differences between an estimate and a quotation. **2**

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Q5 Differentiate between capital allowances and depreciation. **2**

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Q6 Explain the meaning of elasticity as used in the marketing services. **2**

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Q7 State what is meant by an 'environmental impact analysis'. **2**

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Please turn over/.....

Answer All questions

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Q9 State the possible effects of increasing CO² (carbon dioxide) concentration in the atmosphere. 2

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Q10 State how plant communities respond to environmental stresses. 2

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WRITTEN EXAMINATION**

Thursday 10 February 2005

IMPORTANT – Please read carefully before commencing.

- i) The duration of the papers in Module **F** is **2 hours**.
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- iv) Write your answers legibly in the answer booklet provided.
- v) Use metric measurements only.
- vi) Where plant names are required they should include genus, species and where appropriate, cultivar.

Module F

**Ecology and Environment
Resource Management**

Sections B & C

Structured Questions

Please turn over/.....

Section B – Ecology and Environment

Answer **ONE** question from this section.

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Please see over/.....

Section C – Resource Management

Answer **TWO** questions from this section.

		Marks
Q3	a) State SIX consequences of poor time management.	6
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RHS (LEVEL 3) DIPLOMA IN HORTICULTURE

Thursday 10th February 2005

MODULE F

Ecology and Environment Resource Management

Examiners Comments

Candidates Registered	54	Total Candidates Passed		
Candidates Entered	39 (72.2%)	Passed with Commendation	11	(69.2%)
Candidates Absent	5 (9.3%)	Passed	27	(28.2%)
Candidates Deferred	10 (18.5%)	Failed	1	(2.6%)
Candidates Withdrawn	0 (0%)			

General Comments by Senior Examiner.

The ability to write concise, factual information relevant to the particular question is a major factor in successful examination preparation. However candidates who have been awarded higher marks have paid close attention to a number of other important points, as follows:

- 1) Carefully read the rubric at the top of the page in order that you are clear on what is required of each paper.
- 2) Do not rush to answer a question that immediately appeals, take time to read the papers and questions thoroughly.
- 3) Interpret the meaning of key words such as 'evaluate', 'describe' and 'explain' etc. Ensure that you understand in advance the examination and what is meant by these key words.
- 4) Look carefully at the mark allocation to each section. It is a good indicator as to how much information and time should be allocated to the section. Many candidates appear to ignore this with the result that either a lot of time is spent answering a section which may have a comparatively low mark, or little time is devoted to a section carrying higher marks.

- 5) Within the structured questions it, is important to keep to the specific sections. Some candidates have ignored this and rolled all sections into one making the marking of the question more difficult.
- 6) Diagrams can be very helpful and supportive to an answer. They should be large, clear and well labelled, without unnecessary adornment of colour.
- 7) Ensure that when requested suitable examples are given in particular plants, where the full botanical name should be provided.
- 8) Examination technique needs to be considered with regard to time management and answer planning to ensure the writing of succinct, factually correct and unambiguous answers.
- 9) All candidates should ensure that prior to sitting the examination they receive practice at answering past examination questions. This enables familiarisation and practice with examination technique and the opportunity to have questions marked and comments made by their course tutor.
- 10) Attention is also drawn to the suggested reading list identifying a number of useful texts that will help prepare the candidate for the examination. This is obtainable from the Examinations Department at Wisley.

Section A. Short Answer Questions

- Q1. *Identify **FOUR** possible consequences of an organisations lack of commitment towards health and safety.*

This was well answered by most candidates. Highest marks went to answers which included a wide range of examples including human, economic, legal and production factors, all resulting from a likelihood of more accidents occurring. Poor answers usually took the form of one main consequence only being given e.g. increased number of accidents, affecting four different groups of people (workers, contractors, public & suppliers).

- Q2. *State **FOUR** factors an employer should consider in the preparation of a recruitment interview for a horticultural vacancy.*

This question was not well answered. Too many candidates misread this to mean, in preparation to recruit staff, instead of the specific situation of preparation for a job interview. Frequent references were made to job descriptions and job (people) specifications, which would in reality be drawn up before the job was even advertised. Good answers included factors such as organising the interviewing 'panel', the interview room, a tour of facilities, aptitude tests etc.

Q3. *State how plant communities respond to environmental stresses.*

Mostly satisfactory but few outstanding answers. Some candidates misinterpreted the question and centred their answers on how particular named plants have adapted to environmental extremes. Plant communities respond by changing. Certain plants die out altogether, others tolerate stress by evolving mechanisms enabling them to survive and yet others avoid stress by using early dormancy or water conservation adaptations.

Q4. *State the differences between an estimate and a quotation.*

Well answered though some candidates incorrectly thought that it was simply a matter of whether the process was verbal (=estimate) or written (=quotation). In fact this is quite irrelevant as written estimates and verbal quotations are by no means uncommon. What almost all answers missed was that although a quotation is legally binding, the letters E & O.E. (errors and omissions expected) on the document do allow an escape from enforcement where a genuine "typing" or secretarial error has been made.

Q5. *State **FOUR** effects of exposure to frequent high winds on plants.*

Some good answers were submitted but all too often, similar effects were offered and maximum marks were rarely given. A brief explanation of damage to the roots, stems (branches), flowers and leaves would clarify the examples of damage.

Q6. *Explain the meaning of elasticity as used in the marketing services.*

Very poorly answered with most candidates using guesswork. This was very disappointing as marketing is such an important topic, particularly at this level of qualification. Elasticity is about the degree of change in the demand (or supply) of a product or service, as a result of a change in price. It assesses responsiveness to price change and is thus vital to the pricing process.

Q7. *State what is meant by an 'environmental impact analysis'.*

Well answered by most, the clues to the answer being in the question. However, in order to gain the highest marks, candidates needed to emphasize the thoroughness of this analysis. This is to ensure that all possible consequences of a future development are identified, evaluated and assessed so as to judge their impact. Few answers made clear the importance of this thorough examination.

Q8. *Differentiate between capital allowances and depreciation.*

A reasonable attempt was made by most candidates who correctly explained the process of depreciation. The fact is that whilst both terms refer to the same process of estimating the annual cost of using capital items, they are used by different organisations: depreciation in management accounts and capital allowances by the Inland Revenue.

A significant number of answers incorrectly mentioned Balance Sheets.

Q9. *State the possible effects of increasing CO² (Carbon dioxide) concentration in the atmosphere.*

A well answered question, some candidates identifying a range of practical effects whilst others preferred to emphasize the increasing photosynthesis and speeding up of the global warming process.

Q10. *List **FOUR** items of a staff induction programme.*

Another well answered question. The more distinct the items chosen the better the quality of answer. Candidates own personal experience was apparent in some answers.

Section B. Structured Questions (Ecology and Environment)

Q1. a) *Evaluate the threats posed to wildlife habits within the UK caused by horticultural practices.*

b) *Review current conservation policies and initiatives in relation to this threat.*

Candidates who correctly identified and gave some assessment of the particular threats caused by **horticultural practice** gained the highest marks. Where threats were generalised or more agriculturally focused, candidates could not be rewarded.

Inappropriate examples included land clearance for grazing livestock and genetically modified crop production – neither of which are horticultural practice.

Part (b) gave wide scope to review some conservation policies and initiatives. Candidates could state many examples, such as SSSI's, BAP's, and the Forestry Stewardship Council (FSC) labelling scheme, but answers often lacked detail or were again focused on agricultural initiatives.

Q2. a) *Distinguish between a halophyte and a hydrophyte.*

b) *Describe how **NAMED** hydrophytes adapt to specific environments.*

c) *Describe how garden soil can be ameliorated in order to grow hydrophytes.*

The main distinction between hydrophytes was correctly stated though fuller answers included the fact that halophytes are adapted to grow in salt-rich soils **and** salt-laden air.

Candidates had most difficulty with section (b). Highest marks were awarded when **named** hydrophytes were cited with their particular adaptations, and the specific environment inhabited. An example could be the underwater oxygenator *Ceratophyllum demersum* (Homwort). This has no stomata, with oxygen and carbon dioxide entering by diffusion over the whole plant surface, through a very thin cuticle. The thin foliage and extreme leaf division increases the absorptive area for gas exchange to take place.

Marks were awarded in section (c) for candidates who described various means to improve water retention, such as by incorporating punctured liners or the addition of well-rotted farmyard manure.

Section C. Structured Questions (Resource Management).

- Q3. a) State **SIX** consequences of poor time management.
- b) Explain how the principles of effective time management can enable a manager to improve work practices in a **NAMED** horticultural situation.
- c) State the limitations of a computer based time management system.

The first part required candidates to state six consequences of poor time management. Weaker responses did not make distinct points or provided lists rather than statements. The second part required an explanation of how the principles of effective time management could enable a manager to improve work practices. Strong answers provided specific examples of practical application of theory, whilst weaker candidates did not structure their answers properly, failed to identify key actions or provided insufficient understanding of theory. The final part required a statement of the limitations of a computer based time management system. Weaker candidates did not appear to understand the question and provided general points on computer use in business or stated strengths **and** limitations.

- Q4. a) State the main sources of finance available to start up a business
- b) Describe the main elements of a cash-flow budget for the first six months of trading, with reference to a **NAMED** horticultural business.
- c) Explain how a computer spreadsheet can assist in the management of a cash-flow budget.

This question on finance was in three parts. The first part required candidates to state the main sources of finance available to start up a business. Weaker answers provided insufficient detail of alternative sources of finance or provided lists rather than statements. The second part required a description of the main elements of a cash-flow budget. Strong answers provided an illustrated example of an outline budget and calculations, with an explanation of how it could be used in financial management, weaker responses confused concepts of cash-flow and profit or were insufficiently detailed to demonstrate clear understanding. The final part required an explanation of the use of a computer spreadsheet in cash-flow budgeting. Weak answers outlined general computer applications; stronger responses provided detailed examples of the uses of a spreadsheet in cash-flow management.

- Q5. a) *Describe with examples, the elements of an outline marketing plan for a new company in a **NAMED** sector of horticulture.*
- b) *Explain how a marketing budget can be devised for the new company.*
- c) *Explain how a **NAMED** trade organisation could support the company.*

This three-part question was on marketing a new business. The first part required a description of the main elements of an outline marketing plan. Strong answers provided a structured account of marketing principles applied to a new business. The second part required an explanation of how to devise a marketing budget. Strong answers related the marketing budget to the overall business planning process, marketing objectives and business environment. The final part on the support given by a named trade organisation was well-answered, most candidates showed a good understanding of the function of the chosen trade organisation.

- Q6. a) *Describe the structure of a staff development plan for a small business in a **NAMED** section of horticulture.*
- b) *Explain the merits and limitations of 'on the job' training.*
- c) *Describe **THREE** techniques that maybe used to evaluate training expenditure.*

This three-part question was on staff development and training. The first part required a description of a staff development plan. Strong responses provide a clear plan related to a named business scenario. Weaker responses concentrated solely on appraisals, with insufficient understanding of training needs or training gaps nor how to plan training in a business. The second part required an explanation of the merits and limitations of 'on-the-job' training. This part was well answered by candidates with a good range of examples used. The final part required a description of how to evaluate training. Weaker responses lacked objectivity or provided only general ideas on training outcomes rather than evaluation techniques.
