RHS Qualifications

Examination: RHS Level 2
Unit: Unit 2
Examination date: February 24

General Introductory Comments

Examiners' Comments are produced by RHS Qualifications following each examination series. These Examiners' comments are intended to help candidates and centres to develop an understanding of the requirements of the RHS Level 2 examinations. This is achieved through a review of candidate responses indicating key areas of strength, while also considering areas where candidates demonstrated a weaker understanding of Topic areas or where there was evidence of gaps in their knowledge.

Candidates who scored high marks in this Level 2 examination:

- demonstrated a high level of knowledge and understanding of facts (AO1)
- could apply information and ideas (AO2)
- could discuss, and address straightforward problems (AO2)
- could demonstrate holistic/integrated knowledge of the 4 Qualification-wide outcomes and the 4 Topic areas considered in Unit 2.

Overview of Examination

Levels of demand

Questions were set at three levels of demand within this paper.

Questions that require a recall of basic factual knowledge are classified as being low demand.

Questions that require the recall of more technical concepts or the application of knowledge are classified as medium demand.

Questions that require the recall of advanced technical concepts, the application of these concepts and the integration of these concepts across topics, are classified as high demand.

General comments

An analysis of scripts has indicated that strong candidate responses shared many common characteristics:

- planned out their time for Section A, B, and C
- provided concise, well developed responses
- correctly used appropriate technical horticultural terminology
- gave full scientific names, when providing plant examples
- gave the appropriate number of responses, e.g. name two…
- successfully applied knowledge to new scenarios and situations
- evidenced planning of responses in long form answers
- integrated their long form responses into a number of relevant Topics, and Qualification-wide outcomes
- Provided responses that were logical, developing coherent arguments.

An analysis of scripts has indicated that weaker candidate responses also shared many common characteristics:

- there was little evidence of time management for Section A, B, and C
- responses often related to candidates focusing on one key term in the question, and then writing as much as possible on this part of the question
- incorrect, or little use of horticultural terminology
- stated common, or incorrect names, when providing plant examples
- did not provide the required number of responses, providing either fewer responses or a greater number of responses than the requirement of the question.
- were unable to apply key areas of knowledge
- provided partial responses in long form answers
- did not integrate their long form responses into relevant Topics, and Qualification-wide outcomes.

Qualification specification and Guidance Document

Centres and candidates are reminded that the Qualification Specification follows current best practice. The Assessment Outcomes are written at AO1, AO2 and AO3, with broad descriptors.

The Guidance Document was developed to provide guidance with regards to the interpretation of these Assessment Outcomes in terms of breadth and depth that is appropriate to a Level 2 qualification.

It should be noted that the Guidance Document is not intended to be a comprehensive guide to teaching and learning. Instead, it is designed to provide examples of some of the key areas contained within an Assessment Outcome. As an example, where an Assessment Outcome in the Qualification Specification formally lists 5 areas that should be included, the Guidance Document may only unpack one of these areas as an example. The centre is then expected to apply the level of breadth and depth given in the exemplar to the other areas defined in the Assessment Outcome.

Questions may therefore be set on areas that are not explicitly stated in the guidance document. All questions set fully reflect the aims of the Assessment Outcomes, and the examples of breadth and depth given within the guidance document.

The next full review of the Guidance Document will be published for the teaching year commencing September 2024.

Section A

Questions 1 – 20

General comments on Section A

Forced answer questions are designed to test candidate's knowledge and understanding of the concepts covered in the 4 Topics and the 4 Qualification-wide outcomes that make up this unit.

This section was well attempted by the majority of candidates, and as with the Unit 1 examination, it was clear from annotations on the examination papers that many candidates were using good examination technique, discounting distractors, to end up with the correct answer to the question.

Section B

Each question is considered separately.

Question 1

Candidates were asked to state four specific health benefits of regular gardening activity.

Strong candidate responses were specific, and included:

- reduced risk of anxiety
- lower stress levels
- lower blood pressure
- reduced risk of heart disease

Weaker candidate responses were often generic, rather than specific, including:

- improved physical health
- improved wellbeing
- being outside in fresh air
- social interaction (which is not a specific health benefit)

.
These responses, were not specific, and did not reflect the required depth and breadth of knowledge necessary at Level 2.

Question 2

This question was designed to assess candidate's knowledge of the Qualification-wide outcome, Sustainability, and required candidates to complete a table. Some of the cells in the table were already completed for candidates to provide an indication of depth and breadth.

This question was well answered, with candidates providing strong responses that were appropriately factual and detailed, these included concepts such as:

Plastic having a negative environmental impact in both manufacture and in waste management, with the sustainable solution of purchasing bare root stock to avoid the need for plastic pots.

The irrigation of newly planted garden areas indicated gaps in candidate knowledge, with weaker responses failing to discuss the negative environmental impact of mains water usage and the impacts of water extraction. Candidate responses were often generic, rather than specific, and so did not meet the requirements of a Level 2 qualification.

Question 3

This question, which was answered well by the majority of candidates related to the selection of plants for a border to support insect pollinators.

Candidates were required, in part a) to state three factors that would inform their choice of flowering plants for this border.

Strong candidate responses correctly stated:

- flowers having simple floral structures, or the presence of landing platforms within flowers
- flowers that have a long season, or plants that repeat flower over a season
- the selection of plants that are nectar rich
- the selection of plants that are pollen rich
- flowers that are brightly coloured
- the use of best practice to identify plants that are particularly beneficial to pollinators.

Weaker candidate responses stated:

- selected plants should be insect pollinated (which is stated in the stem of the question).

The second part of this question required candidates to name two flowering plants they would select for inclusion in this bed.

Stronger candidate responses suggested suitable plant species using full scientific plant names. Popular choices with candidates included, *Cosmos bipinnatus*, *Verbena bonariensis* and *Papaver orientale*.

Weaker candidate responses either suggested inappropriate plant species, for example plants with double flowers, plants that were wind pollinated, or suggested plants using their common names.

Question 4

This question required candidates to name one species of plant that would be both suitable for creating a hedge that is 1m in height and provide habitat for wildlife.

Strong candidate responses correctly identified a suitable plant species, for example *Berberis thunbergii*.

Incorrect candidate responses suggested plant species that would not be suitable for producing a hedge that is limited to 1m in height. Incorrect responses included *Crataegus monogyna* and *Taxus baccata*.

The second part of this question required candidates to explain two distinct ways that the named plant species creates habitat for wildlife. Where questions contain the word distinct, candidates are required to give examples that do not share commonality, for example roosting places for birds, and nesting spaces for birds would not both be credited with marks, as they are not distinct, with the candidate not displaying the depth and breadth of knowledge required at Level 2.

Candidates were expected to demonstrate an applied knowledge of the term habitat, which can be defined as meeting all the environmental conditions that an organism needs to survive.

Strong candidate responses reflected the above principles and included:

- the provision of a food source, for example berries, pollen or nectar
- the provision of roosting, or nesting sites for wild bird populations

Weaker candidate responses often stated, rather than explained how the plant provided habitat. This restricted the mark that could be awarded, as the full depth and breadth of knowledge required was not demonstrated by the candidate.

Question 5

This question required the candidate to explain the term ‘totipotency’.

Strong candidates provided detailed, correct and appropriate definitions.

Weaker candidate responses were generic, but did not provide the required level of detail for the award of both of the available marks within a Level 2 qualification.

The second part of this question required candidates to state how the totipotency of root fragments of some plants make weed control difficult.

Strong candidate responses stressed the importance of removal of the entire root system in plants such as *Taraxacum officinale*, explaining that any root fragments left can generate new plants.

Weaker candidate responses often suggested inappropriate plant examples, for example, *Cardamine hirsuta*.

Question 6

The first part of this question required candidates to state two functions of a ha-ha in an English Landscape style garden.

This part of question 6 was well answered by the majority of candidates, who correctly stated functions including prevention of access to the garden to livestock, while providing uninterrupted views from the garden of the countryside beyond.

The second part of question 6 related to a Renaissance garden, and the replacement of a low growing hedge that had been damaged by heavy snowfall and winds.

This part of question 6 was well answered by the majority of candidates, who correctly identified the factors that should be considered when selecting woody plant species to replace the hedge as being:

- suitable to the historical context of the garden
- resilient to regular clipping/trimming
- appropriate to environmental conditions
- appropriate leaf density
- a suitable leaf size for regular trimming
- resilient to pest and disease

Weaker candidate responses tended to stray from the scenario stated, and suggesting factors that would not be appropriate to the site.

The final part of the question required candidates to name two suitable plants for the replacement hedge.

Any suitable plant was accepted, common candidate responses included, *Taxus baccata*, *Buxus sempervirens*, *Fagus sylvatica*, and *Carpinus betulus.*

Question 7

This question required candidates to state two potential purposes of Citizen Science projects.

Stronger candidates were able to accurately state:

- citizen Science Projects assimilate data
- engage the public /community to connect with nature.

Weaker candidate responses often made reference to Citizen Science Projects, for example the RSPB Big Garden Birdwatch, but were not able to clearly state the purpose of these studies.

Candidates were required to provide a greater knowledge and understanding of Citizen Science by explaining how the results of these projects can inform the development of gardens.

Stronger candidates correctly stated:

- the surveying of sites to gain information in the ecological value
- allow for the evaluation of plant species for future planting projects
- to establish biodiversity benchmarks

Weaker candidate responses were generic, and unable to apply the concept of Citizen Science projects to the development of gardens. This indicated a significant gap in candidate knowledge.

Finally, candidates were required to explain how the results of these projects can inform the maintenance of gardens.

Stronger candidates were able to accurately state impacts as being:

- to inform the timing of garden tasks to minimise wildlife disturbance
- the concept of leaving areas wild, or to practice wilding
- the avoidance of pesticides as management tools, favouring sustainable pest and disease management strategies.

Weaker candidate responses were generic, suggesting generic measures for example not cutting hedges in nesting seasons, without the required level of detail or the linking to Citizen Science Projects.

Question 8

This question was challenging to many candidates with a lower number of strong candidate responses.

The question required candidates to state four stages that should be followed when developing a Biodiversity Action Plan for a Community Centre.

Most candidates were able to suggest the need to audit habitat and species, however there were significant gaps in knowledge.

Candidates who scored high marks were able to state four stages of developing a biodiversity action plan as including:

- Bring together people within the community
- Identify expertise within the community
- Audit habitat and species present on the site
- Match species and habitat from the audit to the UK Biodiversity Action Plan
- Identify threats to the habitat and species.

The second part of the question asked candidates to name two priority habitats, and two priority species named in the UK Biodiversity Action Plan.

Strong candidates were able to state hedgerows, and orchards as priority habitats, with European hedgehogs, house sparrow, starling and great crested newts as priority species.

Section C

Section C candidate responses are graded against the assessment ladder, which is on the next page of this report. Candidates and centres are advised to review the ladder as this indicates how the assessment decisions are made, when grading long form responses.

Candidate performance in Section C ranges from those candidates who:

- were prepared to produce long form responses
- who carefully planned their answers, including key points
- logically approached the question
- shared horticultural knowledge that was technically correct and to the required depth of knowledge for Level 2.

through to candidates who:

- produced very short responses which did not provide the required level of depth and breadth.
- provided responses which were unplanned and unstructured
- provided responses that gave a framework, but which did not provide the required level of detail
- picked up on certain words in the question, and wrote all they know about these words, rather than answering the set question.

In addition to the assessment ladder candidate responses are also reviewed against the criteria set out below:

Indicative content

- Strength of response
- Integration
- Horticultural knowledge.

Strength of response:

Strong candidate responses:

- developed a logical argument to answer the question
- drew on reliable information sources
- were relevant to the question
- expressed clarity of thought
- demonstrated knowledge of horticultural practices.

Integration:

Candidate responses should integrate with other relevant areas of the syllabus.

Assessment ladder (for information)

Band	Mark range	Summary	Description
4	12 - 15	Fully developed (Total)	**A highly detailed, comprehensive, fully relevant response, addressing all aspects of the question** ☐ No irrelevant or incorrect material or observations at the top end of the mark range: otherwise only very minor errors/omissions (which do not detract from an otherwise strong response) ☐ Full integration/clear links demonstrated with other appropriate topics as required: a holistic approach ☐ Advanced current professional horticultural knowledge/principles demonstrated (and evidence of advanced material beyond the specification at the top end of mark range) ☐ Consistent use of correct and appropriate technical language.
3	9 -11	Mainly developed (Solid)	**A reasonably detailed and fairly comprehensive response, with mostly relevant observations, addressing most of the key elements of the question** ☐ Some minor evidence of irrelevant or incorrect material or observations (in what is otherwise a good response), with occasional lack of detail/omissions at times ☐ Secure evidence of some appropriate integration with other topics but some linked topic areas are occasionally overlooked or incorrect associations are made: a partially holistic approach ☐ Current professional horticultural knowledge/principles demonstrated most of the time, with occasional errors, but largely appropriate explanations and application ☐ Correct and appropriate technical language demonstrated most of the time, with some minor errors.
2	6 - 8	Rudimentary (Basic)	**A largely basic response with some relevant observations, addressing some key elements of the question** ☐ Some significant evidence of irrelevant or incorrect material and frequent lack of detail, with some key areas overlooked ☐ Occasional evidence of correct integration with other topics, but many areas are overlooked and incorrect associations made: little evidence of a holistic approach ☐ Current professional horticultural knowledge/principles demonstrated some of the time, but with frequent errors, and only basic explanations or application ☐ Correct and appropriate technical language only partially demonstrated but limited. Some key errors.
1	0 - 5	Undeveloped (Unsatisfactory)	**A largely poor response with few relevant observations, addressing few of the key elements of the question** ☐ Material is largely irrelevant or incorrect and lacking in any detail, with many key areas overlooked ☐ No, or very little evidence of correct integration with other topics, with many areas overlooked and incorrect associations made: no evidence of a holistic approach ☐ No or little evidence of current professional horticultural knowledge/principles demonstrated, with poor or incorrect explanations or application ☐ Little (if any) technical language demonstrated. Often incorrect. Key errors.

Question 1

This popular long form question required candidates to explain how named sustainable garden practices can increase biodiversity and lead to the development of food chains and webs.

Candidates who scored marks in the higher bands:

- demonstrated the use of professional terminology
- gave examples of food webs in the garden, commonly cited examples of food webs included the leaf of a plant as part of a primary producer, acting as fodder for a caterpillar as a primary consumer, which itself is prey to a blue tit, as the secondary consumer, which might be prey to a bird of prey as a tertiary consumer
- named a range of sustainable garden practices including:
    - minimal cultivation
    - leaving fruits on plants
    - tolerance of primary consumers on plants
    - timing of pruning operations
    - the use of hibernacula or habitat piles
    - concept of minimal interventions
- accurately linked the impact of these practices on biodiversity, along with consideration of impacts on food chains/web.
- Integrated areas such as best practice.

Candidates who scored marks in the lower bands:

- used limited professional terminology
- gave complex examples of food webs in the garden. Commonly cited examples of food webs included, organic matter in the soil leading to an increase in worm populations, with hedgehogs then eating the worms, often without using the correct terminology, for example primary producer etc.
- did not name sustainable garden practices, or gave a very limited range of examples
- did not integrate their answers to demonstrate a holistic understanding
- did not give named examples of plants or other species.

Question 2

This question required candidates to discuss a range of measures that a Parks Department could take to address the problems associated with vandalism.

Candidate responses to this question were varied with very few candidates discussing the root causes of the issue, stating anti-social behaviour, along with the impacts that reduced management input in parks can have on increasing vandalism indicating gaps in candidate knowledge.

Candidates who scored marks in the higher bands discussed a range of measures to address the problems including:

- the use of friends groups
- the use of volunteers
- involving children in activity days
- inviting people into the park, with family events, for example picnics
- reducing the height of shrubs to increase visibility
- the use of CCTV
- the impacts of improved maintenance standards
- increased gardening presence during the day
- rapid repair of damage
- the allocation of resources
- established the link between the quality of green space, and the feeling of safety, with unsafe spaces resulting in reduced park usage.

Candidates who scored marks in lower bands tended to:

- describe issues in generic terms, but did not offer specific suggestions for remedies to these issues
- offered a framework of issues, but did not consider these at the required level of detail for Level 2
- missed key concepts such as community involvement.

Question 3

This question was designed to assess the candidate's knowledge on seed dispersal mechanisms used by plants. Candidates were asked to apply this knowledge by discussing how the release of seed through these mechanisms impacted on garden maintenance.

Candidates who scored marks in the higher bands:

- provided detailed responses relating to the wide range of seed dispersal mechanisms used by plants
- discussed how these mechanisms impact on gardens maintenance with equal balance to the positive impacts in the development of naturalistic plantings, with the negative impacts relating the management of weeds.
- provided named plant examples, using the full scientific plant name
- discussed and evaluated key points in detail, indicating an advanced understanding of the application of scientific principles to the management of gardens.

Candidates who scored marks in the lower bands:

- provided basic responses that considered a narrow range of seed dispersal mechanisms
- did not discuss how these mechanisms impact on maintenance
- some candidates limited their responses to weeds, rather than developing their responses to include the benefits of having plants that self-seed within a garden
- often provided a framework within their responses but failed to develop basic points
- some candidates confused the process of pollination with seed dispersal, indicating gaps in knowledge
- gave few plant examples, or used only common names.

Question 4

This question related to the incorporation of sustainable gardening practices with regards to traditional bedding displays as part of Britain in Bloom.

Candidates who scored marks in the higher bands:

- discussed the role of bedding in promoting civic pride
- discussed the ecosystem services provided by seasonal bedding
- discussed the negative environmental impacts of seasonal bedding
- suggested alternative strategies to meet the judging criteria
- suggested the use of herbaceous and woody perennials
- suggested plant selection strategies that increase biodiversity
- provided a wide range of appropriate plant examples, using full scientific plant names
- linked their responses to best practice.

Candidates who scored marks in the lower bands:

- did not explain the positive benefits of bedding
- provided a framework to their answer but did not develop their points, or develop coherent arguments
- discussed tangential topics, for example the use of colour schemes
- some candidates did not appreciate the meaning of the term seasonal bedding.