



Including Examiner Comments



R3112

**UNDERSTANDING THE SELECTION & USE OF LANDSCAPING ELEMENTS  
IN THE GARDEN**

Level 3

Thursday 20 June 2024

11:25 – 12:50

Written Examination

Candidate Number: .....

Candidate Name: .....

Centre Name: .....

**IMPORTANT – Please read carefully before commencing:**

- i) The duration of this paper is **85** minutes;
- ii) **ALL** questions should be attempted;
- iii) **EACH** question carries **10 marks**;
- iv) Write your answers legibly in the spaces provided. It is **NOT** necessary that all lined space is used in answering the questions;
- v) Use **METRIC** measurements only;
- vi) Use black or blue ink only. Pencil can be used for drawing purposes only. Ensure that all diagrams are labelled accurately with the line touching the named object;
- vii) Where plant names are required, they should include genus, species and where appropriate, cultivar;
- viii) Where a question requires a specific number of answers; only the first answers given that meet the question requirement will be accepted, regardless of the number of answers offered;
- ix) Please note, when the word '**distinct**' is used within a question, it means that the items have different characteristics or features.













**Q4**

Describe **FIVE** distinct ways in which herbaceous borders can contribute the design of a garden.

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b) Describe **ONE NAMED** hedging plant suitable for a shallow chalk soil.

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Total Mark

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**The Royal Horticultural Society, Wisley, Woking, Surrey GU23 6QB.  
Charity Registration Number: 222879/SC038262**

## R3112 June 24 Examiners Report.

General points:

*Where a plant example is chosen, it is important to write the FULL botanic name and not just a partial name, following the correct naming protocols.*

*Where named plant examples are required, **common names are not credited** at level 3. Spellings of scientific terms and botanic plant names need to be full and accurate - poor spellings may be penalised.*

*Where a number of answers are asked for e.g. **THREE** environmental conditions, only the first three in a list will be marked.*

### Q1.

Candidates were asked to compare brick walls and fences under the headings:

- i) maintenance requirements
- ii) aesthetic contributions
- iii) sustainability

Candidates generally had good knowledge of walls' and fences' maintenance and aesthetic contributions, and applied this in a comparative way to each question part. Most candidates had a very strong understanding of the sustainability considerations for each and answered this part well.

#### i) Maintenance requirements

Expected points included:

- Brick walls need overall less annual maintenance than fences
- Brick walls need occasional repointing, unlike fences
- Brick walls and fences may need moss/algae cleaned from the surface, especially after winter and on north-facing sides
- Fences benefit from treating with preservative every few years / or repainting every few years to prolong their life, unlike brick walls
- Fences will eventually need replacing as the wood succumbs to age unlike brick walls

Most candidates understood that brick walls require less annual/overall maintenance than fences. Strongest answers included time frames for maintenance work, e.g. how often to reapply preservative coatings to fences, or when moss/algae should be cleaned from brick walls. Some candidates stated that brick walls need cleaning in general, which is not true. Often allowing bricks to age and gain a patina of lichen is part of their character and doesn't impact on their structural integrity – for example unshaded south-facing wall fronts. A number of candidates made points such as 'fences can be damaged by high winds', but did not go on to make the maintenance-related point relating to repairs/replacements, thus not gaining marks.

Most candidates scored well in this part, but few gained full marks. Those scoring highest gave a range of maintenance tasks, time-frames and direct comparisons between brick walls and fences.

#### ii) Aesthetic contributions

Expected points included:

- Brick walls provide a hard, more formal surface than fences, which have a softer aesthetic
- Brick walls tie into formal gardens where hard materials are used to create symmetrical layouts, whereas fences are better suited to informal gardens and complement a woodland or more naturalistic feel

- Both walls and fences can be painted to link to other garden features like sheds, summer houses, pergolas etc. but walls are often left unpainted and may provide unity with the house or other buildings/garden features constructed of brick
- Brick walls can be gently curved whereas fences are harder to construct with continuous curves

Candidates generally had a clear understanding of the formal aesthetic of brick walls compared to fences, and their capacity to unify with brick structures in the garden, such as paths or the house. Likewise, most candidates stated that fences are less formal and unify with woodland settings. Many candidates linked painting walls and fences to unifying with colour themes in the garden. Marks could not be gained for points relating to using a wall or fence to support climbing plants, as this is not a direct aesthetic contribution of a wall or fence.

Overall, candidates scored well here, with highest marks going to those giving a range of comparative points about the differing aesthetic contributions of brick walls and fences.

### iii) Sustainability

Credited points included:

- Brick walls are less sustainable in the transport of materials due to their heavy weight and high transport carbon footprint whereas wooden fences are lighter and require less carbon to transport
- Existing brick walls are more sustainable because they do not require much chemical input (other than occasional pointing) whereas wooden fences benefit from applications of preservative to extend their lifespan, which typically contain harmful chemicals
- Fences have a shorter lifespan and need eventual replacement, embodying a carbon footprint and removal of trees that provide habitat, whereas brick walls do not need replacing

This was the most comprehensively answered part with most candidates demonstrating a strong understanding of sustainability factors relating to brick walls and wooden fences. Most linked points of sustainability to the carbon footprint manufacture of new bricks/production of new fence panels, and to the potential for constructing walls from reclaimed, local bricks. The majority also made valid points about the longevity of brick walls compared with fences, linking to the lower carbon footprint of maintaining a brick wall compared with a fence.

In questions relating to sustainability, candidates must ensure that their points are linked to a sustainability factor. For example, 'fences panels need periodic replacing' needs to be linked to e.g. 'which requires trees to be felled, destroying habitat, as well as the carbon footprint of manufacture and transport of new panels'. Some candidates made points missing links to sustainability and could not be awarded marks.

## Q2.

Candidates were asked to describe how a balance of interest can be achieved throughout the year in a garden design using five plants from different genera (excluding bedding schemes).

Expected answers could include detail such as the following:

- *Taxus baccata* 'Fastigiata' for all year interest providing structure through its evergreen upright form and dark green narrow foliage, which provides a foil for nearby plants and contrasts foliage colours of most other plants and also brighter flower colours.
- *Garrya elliptica* for winter interest provided by grey/ green catkins that dangle from its branches, contrasting the evergreen, mid to deep green leaves. The catkins sway in the breeze, bringing an element of movement into the garden.
- *Osmanthus delavayi* for spring interest provided by clusters of small, white, tubular flowers that are fragrant. These contrast with the deep green, evergreen foliage that provides year-round interest and a foil for nearby plants, particularly spring – autumn flowering perennials.
- *Allium cristophii* for early summer interest provided by large, spherical heads of purple flowers atop clear green stems; these dry to form interesting tawny coloured seed heads through autumn and into winter.
- *Symphotrichon novae-angliae* 'Barrs Pink' for autumn interest provided by clusters of bright pink, yellow centred flowers that cover the plants in early autumn and are very attractive to pollinators such as bees.

Whilst candidates showed good plant knowledge overall, with clear understanding of differing seasons of interest for their named plants, many candidates could not gain full marks for lacking descriptive detail of their selected plants. At level 3 it is expected that candidates show a depth of understanding, for example describing the winter interest stems of *Cornus alba* 'Sibirica' as 'colourful' was insufficient. Frequently candidates did not spell or format plant names correctly. Binomial names should have a capitalised genus and lowercase species names, and each cultivar name should be capitalised and the whole cultivar encased in inverted commas. At level 3 candidates should be able to write scientific plant names correctly.

Candidates scoring the highest marks wrote detailed responses that fully described their chosen plants' seasonal interest, named the seasons of interest, spelt and formatted plant names correctly, and selected five plants that, together, offer interest in every season.

### Q3.

a) Candidates were asked to describe three maintenance tasks for a grass parterre.

Expected answers included:

- Edging turf to maintain crisp design using edging shears at regular intervals, e.g. weekly, through the growing season
- Repairs to edges using half - moon iron to redefine edge, or using spade to cut out and reverse squares of worn turf along edge
- Mowing with cylinder mower from March to November weekly/at regular intervals/as needed
- Feeding the turf with a summer/high nitrogen lawn feed or winter/high potassium feed
- Scarifying turf with a spring tine rake to remove thatch in autumn or spring
- Aerating turf using a mechanised aerator or garden fork in autumn or spring
- Raking gravel or sand to level and brushing to remove debris
- Weeding with a selective herbicide or hand weeding

This question was generally answered to a high standard with many candidates gaining full marks. In some cases, candidates missed out on top marks by lacking details in their answer, such as naming tools used, season/s the task is undertaken, or an indication of frequency of task.

b) Candidates were asked to describe two mowing effects that could be used as alternative design options for grassed areas.

Expected answers included points such as:

- Mowing turf art into a level lawn by using different heights of cut to create a focal point
- Mowing a turf maze by using different heights of cut to create a space for recreation and a focal point if viewed from elevated points
- Mowing a pattern e.g. stripes or chequerboard in a formal lawn
- A decorative meadow with taller grasses and a meandering path mown through in an informal setting

In general, this part question was well answered with candidates giving two different mowing effects, most commonly citing stripes/patterns using a roller, and using differing heights of cut to create a maze or patterns. Many candidates also suggested mowing paths and circular areas through wildflower meadows. Some candidates only described one mowing effect.



#### Q4.

Candidates were asked to describe five distinct ways that herbaceous borders can contribute to the design of a garden.

This question was fairly well answered by candidates but a lot of marks were lost by not linking to design.

Credited answers included:

- Herbaceous borders can bring unity to a garden through repetition of plant cultivars throughout the borders
- they can create a sense of movement within the garden, encouraging visitors to explore
- they can bring a sense of contrast into a garden by juxtaposing hard surfaces, e.g. paving, with the soft planting schemes, or through edging plants, e.g. *Alchemilla mollis*, overlapping hard surfaces and softening the edges
- they bring seasonal variation into the garden, enabling the garden to have differing points of interest throughout the year
- they can be used to contrast taller vertical elements in the garden such as specimen trees, pergolas or walls
- they can be designed to compartmentalise areas of the garden whilst remaining visually permeable to entice visitors to further areas of the garden
- they can contribute to a sense of informality in a garden by having sinuous, asymmetrical edges, mixed planting without clear regularity of planting
- they offer a chance to display prized plant collections e.g. *Dahlia* or Peony species and cultivars
- they can encourage wildlife in a wildlife-friendly design by offering nectar, forage and nesting through the choice of species
- they provide seasonal colour through flowers or foliage, creating transient/short-term focal points, colour repetition or colour unity with garden features
- they provide varied texture, creating visual interest, e.g. the large leaves of *Ligularia* 'The Rocket' contrast with the highly divided foliage of *Astilbe* 'Red Sentinel'
- they can create balance, for example offsetting an expanse of lawn with deep herbaceous borders either side

The scope of candidate responses was highly varied in breadth and depth, with many candidates missing out on marks for underdeveloped points, or confusion about how plants can be used in different aspects of design. For example, stating 'Rhythm can be created by using the same plant throughout the garden' does not differentiate between unity and rhythm. A fully developed answer needs to include the regularity of specific plant/s placement in an herbaceous border, drawing the eye through the border to create rhythm and flow. Example plants would complete this. Another commonly underdeveloped area was the potential for all-season interest of herbaceous borders. Candidates typically referenced leaving plants over winter for stem and seed head interest, but did not mention how herbaceous borders offer interest in spring, summer or autumn. Knowledge cannot be assumed – only that which is written down can be awarded marks – thus many candidates could not gain marks for not including essential details.

Candidates gaining the most marks made clear points linking an aspect of design to herbaceous borders by providing detail – usually by exemplifying and contextualising, as well as providing named plant examples. These candidates took note of the 'describe' command word and understood that their points needed to be fully qualified in order to provide a comprehensive answer.

## Q5.

a) Candidates were asked to describe two features of a ramp surface material used to improve accessibility of a garden.

Expected answers included:

- Surfaces must be smooth to prevent trips/eliminate trip hazards
- Surfaces must offer good grip to prevent slips/or surfaces must not have loose material that could cause slips
- Surface at top/bottom of ramp must have potential for texturing to indicate start/end of ramp

Candidates generally demonstrated a clear understanding of ramp surface features that improve accessibility, with those giving detailed answers gaining full marks. A small number of candidates suggested points such as adequate lighting or the ramp's gradient, and whilst these are good points, they do not relate specifically to the ramp's surface material (as asked for) and could not be awarded marks. A number of candidates made one point about a non-slip surface, and their second point about not using a loose surface material (e.g. gravel), however loose ramp surfaces increase slippage risk and therefore both points relate to the same accessibility issue. These candidates could not gain full marks.

b) Candidates were asked to state six design features of garden steps to allow maximum accessibility for all garden users.

Expected answers included:

- Risers' height should be limited
- Tread depth should be sufficient for the full foot length to rest upon it
- Surfaces should drain quickly
- A handrail should be installed
- The top and bottom of steps should have a ridged/specially textured surface
- Steps should be wide enough for two people
- Regular landings should be provided
- Benches should be installed near the top/bottom/on bigger landings

This was generally well answered, with many candidates gaining high scores. Clarity of language was especially important in points relating to treads and risers. Some candidates confused treads with risers and suggested insufficient depth of tread (e.g. 100mm, which is not enough for a full foot to rest upon, but would be sufficient for a shallow riser). A small number of candidates suggested that steps should be wide enough for wheel chair users; steps are never an accessible feature for wheelchair users.

## Q6.

This question was not well answered and appeared to be a general knowledge weakness in all candidates. At level 3, questions may assess depth as well as breadth of knowledge within the scope of the syllabus; this question assessed depth of knowledge on play area surface materials.

a) Candidates were asked to state five functional characteristics of materials suitable for the surface in a children's play area in a garden open to the public.

Expected answers included:

- Long lasting in the outdoor environment/doesn't need replacing regularly
- Durable/can withstand wear/use
- High impact absorbency
- Can be installed at a range of depths to suit Critical Fall Heights
- Is porous (with a suitable base)
- Not slippery when wet
- Requires minimum maintenance
- Non toxic

Responses were very varied, with few candidates gaining full marks. However, many candidates made references to high impact absorbency, durability to usage and weather, and non-toxic nature. Marks could not be awarded for points such as the surface being smooth/flat/even, easily cleaned/hygienic (outdoor play surfaces are not typically cleaned), or sustainability (which is not a functional characteristic).

b) Candidates were asked to name two materials which meet the requirements laid out in part a)

Expected answers included:

- Granular/play bark
- Wet pour rubber granules
- Artificial grass
- Rubber tiles
- Chipped rubber

Most candidates referenced chipped rubber, wet pour rubber granules, and play bark/granular bark. Many candidates suggested wood chips/bark chips, which are unsuitable for play areas as they can have sharp edges and may splinter. Only an appropriately named type of bark (play bark or granular bark) could be awarded marks. Sand, mentioned by some candidates, is not an appropriate play surface material – it can be soiled as it attracts animals such as cats for defecation.

c) Candidates were asked to state three aesthetic contributions of one of the materials named in b)

Expected answers included points such as the following:

Chipped rubber:

- A wide range of colours
- Suitable for the design of an urban garden
- Texture can contrast smooth nearby surfaces
- Can be easily shaped to informal curved edges

Granular/play bark:

- Ties in with naturalistic/informal settings/or colour blends with naturalistic woodland play areas

- Texture can contrast smooth nearby surfaces
- Brown colour can contrast nearby plantings/or colourful play equipment
- Can be easily shaped to informal curved edges

Almost all responses referred to play/granular bark, rubber chips or wet poured rubber granules. Most candidates gained marks for linking play/granular bark with unity to woodland/informal settings, and rubber with its potential for different colours and patterns. Often there were repeat points, such as play bark unifying with woodland settings and a separate point stating their unity with bark mulches on nearby borders. Candidates at level 3 are expected to have a full understanding of different play surface materials, both in their functional characteristics and how they can aesthetically contribute to a garden environment in different ways.

## Q7.

a) Candidates were asked to identify four necessary pieces of information that should be identified on a planting plan to enable the costs of the plant order to be calculated.

Expected answers included:

- Name of plant
- Total number of each plant
- Pot size
- Bareroot/potted for e.g. fruit trees, roses
- Tree size: standard, half standard, girth, height

Overall, this was not well answered, with few candidates gaining full marks. There was some confusion between a planting plan and a plant specification. Many candidates did not consider what is essential to calculating the cost of plants, for example stating 'the density of plants in an area' without no further qualification does not make the link to 'so the number of each plant can be calculated'. Normally a planting plan will include a planting schedule with total numbers of each plant. Many candidates could not gain a mark for 'total number of plants' because it's the number of each plant species that must be known to enable plant costs to be ascertained. A number of candidates mentioned the age/maturity of trees to be ordered – trees are not generally purchased in terms of their maturity, as this is not an easily quantifiable unit. They are purchased according to pot size, girth, height, standard or half-standard. Most candidates scored marks for plant name, total number of each plant, bare-rooted and tree size.

b) Candidates were asked to describe three other benefits of using a planting plan for a new garden design.

Expected answers included:

- Useful to show to the client giving an impression of what the border/area will look like
- Provides information for the client on the plants to be included and enables the client to decide whether to approve the plan
- Shows the exact position of plants to enable the landscaper/gardener to set out as required
- Shows the spacing of plants which indicates the cover provided by the planting
- Enables the planting to be carefully designed taking into account design principles such as repetition/colour/unity

There were mixed responses to this part of the question, with only a few candidates gaining full marks; most candidates' answers lacked detail. The overriding commonality was that candidates did not relate planting plans to their purpose as a visual aid and practical diagram enabling clients to understand proposed garden designs and for the correct setting out of plants by a contractor, the designer or even the client. It's essential to make the link between a planting plan and the context in which it's used – to convey ideas to a client and any contractors (as well as for ordering plants, but this was asked for in part a)). Candidates who holistically understood how planting plans are used within the design and completion of a new garden design were able to provide comprehensive answers and gain highest marks.

## Q8.

a) Candidates were asked to describe four qualities of hedges that make them suitable for garden boundaries.

Expected answers included:

- Dense growth to restrict views into garden
- Tolerate regular pruning so hedge can be kept to desired dimensions
- Tolerant of a range of growing conditions (soils, aspect etc.) as conditions may vary along the length of the hedge
- Retain leaves for all/majority of the year to maintain privacy/restrict visual permeability
- Retain branches/foliage near to base to ensure continuity of foliage from top to bottom of hedge
- Tolerant of pollution (e.g. if planted along road) so more polluted sections don't suffer dieback/death
- Do not suffer readily from pests/disease so growth remains uniform and healthy to maintain aesthetic and privacy

Candidates who took note of the specificity of hedges as garden boundaries scored best here. Qualities of boundaries include their ability to screen view into/out of gardens, buffer pollution, and for hedging in particular, be tolerant of a range of growing conditions, resistant to pests and disease, and have dense, robust growth that screens effectively throughout the year. Candidates could not be awarded full marks for undeveloped answers, such as 'hedges screen views into the garden' – this needs additional detail, such as 'due to their dense growth and often evergreen foliage'. As always with a 'describe' command word, candidates who made a point and then qualified/exemplified it scored best.

b) Candidates were asked to describe one hedging plant suitable for a shallow chalk soil.

Expected answers included:

- *Ilex aquifolium*: evergreen with dense foliage of spiny-leaves, foliage deep green, foliage glossy/shiny, female plants bear red berries in autumn
- *Ligustrum lucidum*: evergreen with deep green, glossy oval leaves; creamy white flower panicles in late summer if untrimmed
- *x Cuprocyparis leylandii*: mid-green, very dense foliage growth with fine texture
- *Taxus baccata*: evergreen, dark green, flattened/needle-like foliage, red fruits/arils on female plants in autumn
- *Fagus sylvatica*: marlescent, mid-green summer foliage, autumn foliage rich golden copper to russet brown
- *Carpinus betulus*: marlescent, mid-green summer foliage, yellow autumn foliage, catkins in spring

The majority of candidates did not describe their named plant, instead only naming a suitable plant. Full marks were awarded to candidates who named and described their chosen plant in detail.