INCLUDING EXAMINERS COMMENTS

RHS

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R3111

UNDERSTANDING GARDEN SURVEY TECHNIQUES & DESIGN PRINCIPLES

Level 3

Thursday 21 June 2018

09:30 – 10:55

Written Examination

Candidate Number:……

Candidate Name:……

Centre Number/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 may be used for drawing purposes only;

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.

Ofqual Unit Code M/507/5862

ANSWER ALL QUESTIONS

MARKS

Q1 a) Describe what is meant by **EACH** of the following stages of the design process:

i) client brief; **3**
ii) site appraisal. **3**

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MARKS

b) State **FOUR** distinct ways in which horticultural shows and show gardens may influence the design of domestic gardens in the UK today. **4**

Total Mark

Please turn over/…..

		MARKS
Q2	Describe **FIVE** distinct advantages of a level site when planning and designing a garden.	**10**

Please see over/…..

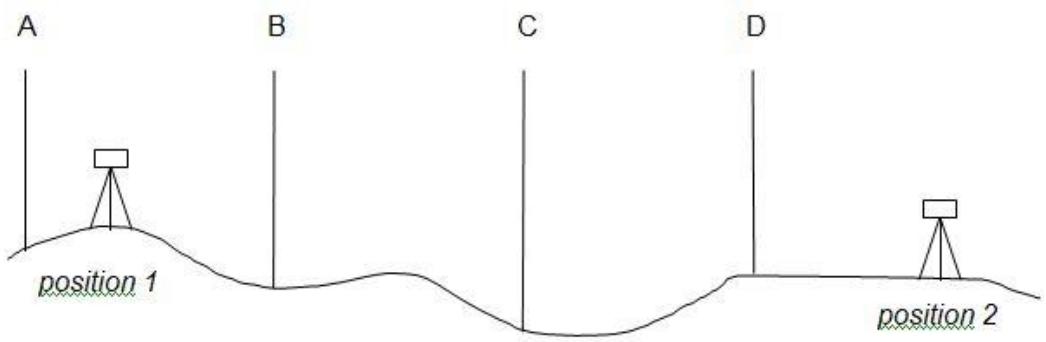
MARKS

Total Mark

Please turn over/…..

MARKS

Q3 a) **Diagram of level survey**



i) Identify the survey points shown in the diagram above by completing the table below. **4**

Survey point	Type of reading
A	
B	
D when read from optical position 1	
D when read from optical position 2	

ii) What other description could be given to point D? **1**

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Please see over/…..

MARKS

b) What other measurements must be recorded in the booking sheets to complete the survey? **1**

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c) Describe **TWO** types of scale drawing that could be produced from a level survey. **4**

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Total Mark

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MARKS

Q4 a) Explain what is meant by the principle of balance in relation to garden design. **2**

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b) Describe **ONE** example of how balance can be achieved in an informal design. **2**

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Please see over/…..

MARKS

c) Describe **THREE** distinct ways in which design can be used to give an impression of space in a small garden. **6**

Total Mark

Please turn over/…..

MARKS

Q5 a) Using triangulation, draw a clearly labelled diagram to show how to survey the position of a rectangular garden shed. **8**

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Please see over/…..

MARKS

b) Describe **ONE** difficulty that might be encountered when carrying out a linear survey. **2**

Total Mark

Please turn over/…..

MARKS

Q6 Describe **FIVE** characteristics of the English Landscape garden style. **10**

Please see over/…..

MARKS

Total Mark

Please turn over/…..

MARKS

Q7 a) A client has expressed a wish to develop a garden for fruit and vegetable growing. State **SIX** pieces of information that would be required from the client to develop the design brief. **6**

Please see over/…..

MARKS

b) Describe **TWO** distinct site characteristics that might limit the scope of a design for a vegetable garden. **4**

Total Mark

Please turn over/…..

MARKS

Q8 a) State **TWO** factors that influenced Victorian garden design. **2**

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b) Describe the differences between typical Victorian and Modernist garden design styles, by giving **TWO** examples under **EACH** of the following:

i) hard landscaping features; **4**
ii) planting. **4**

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Please see over/…..

MARKS

Total Mark

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R3111

UNDERSTANDING GARDEN SURVEY TECHNIQUES & DESIGN PRINCIPLES

Level 3

Thursday 21 June 2018

Candidates Registered	**43**	**Total Candidates Passed**	**81%**
Candidates Entered	**37**	Passed with Commendation	30%
Candidates Absent/Withdrawn	5	Passed	51%
Candidates Deferred	1	Failed	19%

Senior Examiner's Comments

On the whole this paper was well answered with the majority of candidates attempting and completing all the questions. The following guidelines should be of help to future candidates.

1. Where named plant examples are asked for, full botanical names (genus and species) are required to achieve full marks. Common names will not be given a mark.

2. Use the command statements e.g. list or name (single words only), state (a few sentences), describe or explain (a fuller answer) together with the mark allocation, to judge the depth of the answer. Half marks are often allocated where the basic information given is correct but needs further qualification to gain the full mark.

3. Where a number of answers are specified in the question, the examiner will not select correct answers from a list e.g. if the question states 'State' **TWO** plant names', only the first two names given will be marked.

4. Labels on diagrams should be correctly positioned to avoid ambiguity and diagrams should be clearly drawn and annotated. No marks will be awarded for artistic merit.

5. Candidates should use unambiguous plant examples as reference sources from, for example, the RHS Find a Plant Service available on the RHS Website.

ANSWER ALL QUESTIONS

MARKS

Q1 a) *Describe what is meant by **EACH** of the following stages of the design process:*

i) client brief; **3**

ii) site appraisal. **3**

b) *State **FOUR** distinct ways in which horticultural shows and show gardens may influence the design of domestic gardens in the UK today.* **4**

Q1 a) i) Candidates generally showed an understanding of the two stages of the design process but the best answers included descriptions of the types of information obtained and statements on how that information is gathered. For 'client brief', full marks would have been awarded for answers that referred to a consultation with the client identifying their needs and desires for the garden and the features to be included in the design. This consultation involves a face to face interview with the client. The client's preferences for both hard and soft landscaping can be gathered.

ii) The site appraisal involves the designer carrying out detailed observations of the existing site; this will consist of the use of reports and photographic records. A rough sketch plan can be prepared of the site; this will include the characteristics of the site such as orientation, exposure, soil type, the condition of existing features and whether they are to be kept or removed.

b) This part of the question was generally answered well with candidates understanding that horticultural shows enable domestic garden owners to keep up to date with modern technology and trends applicable to garden design. For full marks it was important that each of the four statements were sufficiently distinct, and separate reference, e.g. to 'planting design', 'materials and products', 'sustainable technologies' and 'named designers' would have achieved this.

Some candidates confused show gardens with floral displays which tend to promote new plants, whereas show gardens tend to introduce new ideas in design including hard landscaping, planting ideas such as 'green walls', decorative trends in furniture and art, and the promotion of environmental awareness using themes such as water conservation.

MARKS

Q2 *Describe **FIVE** distinct advantages of a level site when planning and designing a garden.* **10**

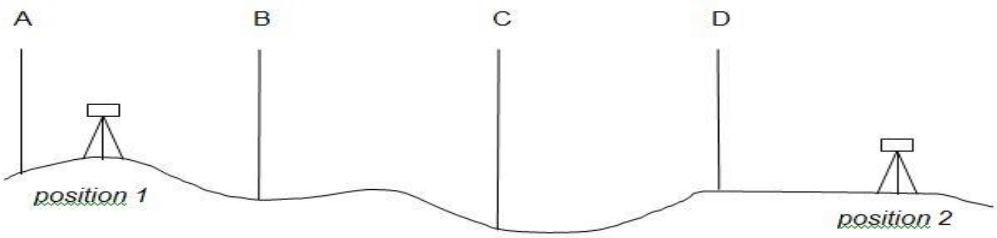
Q2 Candidates were generally able to state five advantages of a level site but, for full marks, it was important that each statement was distinct and that there was sufficient additional detail for it to qualify as a description.

Acceptable advantages would have included:

- Cost of groundworks/installation will be lower than on a sloping site as terracing will not be required and access around site will also be made easier.
- A shorter timescale for project completion can be achieved as design can be executed without need for features such as steps and retaining walls.
- A level site can offer a wider choice of locations for landscape features that require flat area such as ponds and sheds.
- The site is not so affected by reduced light levels due to north facing slopes and therefore offers greater flexibility for planting design and plant selection.
- Generally, maintenance is easier on a flat site for operations such as mowing and weeding. This enables a greater range of uses may be considered for all parts of the garden.
- Surveying of the site is easier with no lengthening or shortening of measurements.
- Problems of soil slippage and erosion which often a problem on slopes can be avoided on level sites.

MARKS

Q3 a)



i) Identify the survey points shown in the diagram above by completing the table below.

Survey point	Type of reading
A	
B	
D when read from optical position 1	
D when read from optical position 2	

4

ii) What other description could be given to point D? **1**

b) *What other measurements must be recorded in the booking sheets to complete the survey?* **4**

c) *Describe **TWO** types of scale drawing that could be produced from a level survey.* **1**

Q3 a) This was a straightforward question for candidates familiar with the techniques of level surveying. Point A is a 'backsight', Point B is an 'intermediate sight', Point D read from position 1 is a 'foresight' and from Position 2 is a 'backsight'. Relatively few candidates could name what other description could be given to point D; candidates that stated either change point or turning point gained the mark awarded.

b) Additional measurements that must be recorded to complete the survey are the distances between each level position and survey point.

c) Two types of scale drawing that could be produced from a level survey are 'section drawing' and 'contour plan'. An adequate description for the section drawing would have been that it shows 'one vertical plane cut through the ground showing rises and falls, whereas a contour plan shows the topography of the land. This part of the question was generally answered very well with many candidates using annotated diagrams to describe the scale drawings.

MARKS

Q4 a) *Explain what is meant by the principle of balance in relation to garden design.* **2**

b) *Describe **ONE** example of how balance can be achieved in an informal design.* **2**

c) *Describe **THREE** distinct ways in which design can be used to give an impression of space in a small garden.* **6**

Q4 a) This question refers to 'balance' as a particular principle in design. Some candidates confused balance with other principles such as 'unity' and 'scale and proportion'. In explaining balance, it was important that candidates described the selection and placing of objects (or groups of objects) on each side of a visual axis so that they appear to have a similar visual 'weight'. Full marks were generally only awarded if the axis was included in the explanation. However, if reference was made to achieving balance from all vantage points within a site, additional marks could have compensated.

b) This part of the question presented a greater challenge to many candidates. In order to gain full marks, the candidate needed to describe asymmetrical balance around a visual axis. Different named items, according to their relative distances from both the vantage point and the axis, could appear to be in balance. A sketch plan and/or elevation would have been useful in describing what the candidate had in mind.

For example, visual balance in an informal site can be achieved by arranging the elements asymmetrically by dividing the observed site into thirds. This can be achieved by planting a mature *Betula pendula* with large canopy of light feathery foliage between the first and second thirds in say a lawn. This can then be balanced by a group of 3 to 5 dark leaved *Ilex* shrubs roughly in the remaining third of the site. The informal setting can be represented by the axis of a curved path.

c) This part of the question was generally answered well with full marks awarded where a clear and distinct statement was made to represent each of the three ways which a candidate chose. For each statement there needed to be a brief description of how it created an impression of space. Possible ways of achieving that impression are as follows:

- By moving the axis of the central space diagonally this will make the site longer. The use of diagonal lines in the ground plan will appear to lengthen the dimensions by the use of a diagonal path or triangular patio.
- The illusion of increased depth or distance can be created by the use of false perspective by the use of converging lines of a double row of hedging which moves closer together further away from the view point.
- The use of carefully placed mirrors used to reflect garden views and add apparent depth.
- Use of colour in planting schemes to increase apparent distance by the use of warm colours closer to the viewer and cooler recessive colours further away.
- By borrowing landscape from outside the garden
- By using finer textured surfaces for both hard landscaping such as paving and plantings which give an illusion of space.

MARKS

Q5 a) *Using triangulation, draw a clearly labelled diagram to show how to survey the position of a rectangular garden shed.* **8**

b) *Describe **ONE** difficulty that might be encountered when carrying out a linear survey.* **2**

Q5 a) This question was generally answered well with candidates invariably illustrating how corners of the shed could be plotted by triangulation (trilateration). Full marks were awarded for a clearly labelled diagram that showed the measuring of a named baseline relating to fixed points on the site as well as a shed with named corners and measured dimensions. The diagram also needed to show the measuring of triangulation lines from known points on the baseline to at least two adjacent corners of the shed. It will have been evident from the drawing that the shed was square or rectangular, i.e. with right angles at its corners.

Failure to adequately demonstrate that the lines were measured (i.e. with distances in metres) or the points/corners were named (i.e. with letters) would have meant reduced marks were awarded as would also happen with an inappropriate method, e.g. lines taken through the shed to a far corner.

b) This question was answered very well by most candidates. Suitable difficulties would have been e.g. ‘thick vegetation’, ‘sloping ground’ or ‘windy conditions’. In order to describe the difficulty, it was necessary to indicate one reason why it presents a problem when carrying out a linear survey. For example, for ‘thick vegetation’ this might have been ‘difficult to lay a tape taut on the ground and therefore an increased risk of inaccurate measurements’.

MARKS

Q6 *Describe **FIVE** characteristics of the English Landscape garden style.* **10**

Q6 Candidates understood that the English landscape originated in the 18th century; the principle designers being William Kent, Lancelot Brown and Humphrey Repton.

In answering this question, it was it was necessary to identify five characteristics of the English Landscape garden style, and for each of them, add some additional descriptive detail. Possible features to include were:

- The inclusion of architectural features such as follies, pavilions, temples, bridges, grottoes built in classical styles such as Doric, Corinthian and Palladian
- Lakes, stream rivers and waterways are made to meander often by diverting and damming existing water courses.
- Large expanses of rolling parkland using leaf colour to create light and shade.
- No use of symmetry or parterres and other geometric features (except around the house in the case of Repton landscapes); sweeping vistas are used. These are often framed by the use of trees (many of which are native); trees arranged singly, in copses or belts.
- The use of distant focal points to create and accentuate the feeling of space.
- In some landscapes; allegorical statues representing figures from classical mythology.
- The use of winding paths through shrub walks to create an air of mystery and discovery.
- An idealised version of nature in the case of Brownian and Repton landscapes
- Many landscapes used devices such as the ha-ha which allowed the parkland right up to the house

The question was generally answered well with candidates able to state five relevant characteristics. It should be noted that if more than five were cited then only the first five were marked. It was important therefore for candidates to provide adequate description for each of five characteristics rather than list a greater number without description.

MARKS

Q7 a) *A client has expressed a wish to develop a garden for fruit and vegetable growing. State **SIX** pieces of information that would be required from the client to develop the design brief.* **6**

b) *Describe **TWO** distinct site characteristics that might limit the scope of a design for a vegetable garden.* **4**

Q7 Both parts of Q7 were generally answered very well by candidates.

a) The pieces of information required from the client in order to develop a design brief for a fruit and vegetable growing area include:

-What crops do they want to grow

-Is the intention to be self-sufficient?

-Are raised beds or flat beds preferred?

-Is a shed required?

-Is sustainability important to them (e.g. re water harvesting/composting)?

-Should the area be near, or away from the house?

There are numerous others; the important criteria being that they are pieces of information that could be gathered from the client relevant to their aspiration of growing fruit and vegetables. An answer such as 'Is the site big enough?' would not have been marked as correct because that is for the designer to decide.

b) In order to get full marks for this part of the question, it was necessary to state two site characteristics and then for each describe how it might limit the scope for design of a vegetable garden. Possible site characteristics would include excessive gradient, shade cast by adjacent buildings or trees, north facing slope, or poor depth/structure of topsoil'. For 'north facing slope', the descriptive statement could have been 'limits crop growth through lower temperatures and light levels'. For 'poor depth/structure of topsoil', again restricting plant growth or range of crops that can be grown, the necessity of constructing raised beds for growing the crops in suitable soil could also have been proposed.

MARKS

Q8 a) *State **TWO** factors that influenced Victorian garden design.* **2**

b) *Describe the differences between typical Victorian and Modernist garden design styles, by giving **TWO** examples under **EACH** of the following:*

i) hard landscaping features; **4**
ii) planting. **4**

Q8 a) Factors that Influenced Victorian garden design include 'new technology, for example the lawn mower' and 'the introduction of new plants from abroad requiring protected cultivation'. There are a number of further acceptable options relating to technological, cultural and fashion trends of the time.

b) The descriptions for this part of the question had to include two examples from the Modernist style and two from the Victorian style in relation to both hard landscape and planting.

i) For hard landscape, suitable examples from the Victorian style include 'Highly ornate stone balustrade walling' and 'Circular raised stone ponds with central fountain'. In contrast a Modernist garden may have had 'Simple rendered walls' and 'ground level square ponds with still water'. It was important that the given comparisons were like-for-like, as described here, relating to walling and ponds.

ii) For planting, suitable examples of the Victorian style would have been 'Brightly coloured formal seasonal bedding' and 'Densely planted borders of evergreen shrubs' compared with the Modernist style of 'Perennial ground cover with emphasis on leaf colour/texture' and 'Tall shrubs/trees planted as individual specimens'. References to underlying trends, e.g. for 'collecting' in the Victorian period and for 'simplicity' in modernism, often helped candidates in supporting or clarifying their answers.