

Syllabus for Landscape Architects Accreditation Examination

1 December 2015

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INTRODUCTION.

The Singapore Landscape Architects Accreditation Examination is designed to elevate the profession of Landscape Architecture to a new and higher level than at any other time since the profession started its role in the design community in the early 1980s. The projects now being undertaken are far more complex than in the early days, and the role of Landscape Architects has become deeply infused into the whole design process of the city, its buildings and infrastructure.

With the expansion of our scope in both breadth and depth, Landscape Architects must now operate at a high level of professionalism in close parallel with related disciplines such as Architects and Engineers, who, as Qualified Person(s), have very challenging registration requirements.

Landscape Architects must now upgrade their professional role and capabilities to raise the standards of:-

- Professional practice and obligations of professional behaviour,
- Knowledge of policies and regulations,
- Working knowledge and understanding of legal frameworks and contract law,
- Technical capability in construction and horticulture,
- Working abilities in environmental matters, both statutory and practical,
- Understanding and appreciation of how the business of the Landscape Architecture discipline is organised and managed. (Government and Private Sector)

Notwithstanding the above, part of professional knowledge is also the ability to discern against accepting undue responsibilities that require expertise outside the standard field of expertise of Landscape Architects.

The exam system cannot expect candidates with a moderate level of experience to have an understanding of all the above at the level of a practitioner with 10-15 years' experience. The syllabus is designed, however, to cover subjects which are essential to the Landscape Architect moving up in the profession. In this sense, for the candidate to become a "well-rounded" professional, the range of subjects needed to perform at the optimum level, is that set out in the syllabus.

Reaching a suitable level for the exam will take time, and requires a specified period of study, and the need to work with experienced Mentors.

The experience and knowledge level which describes a candidate's level is set out here:-

Experience Level 1 – Entry Level. Little theoretical or no knowledge of any one of the range of subjects, meaning you would not be able to carry out work demanded by that subject without further training.

Experience Level 2 – Junior Level. Having a basic knowledge and minimal experience of subjects, but only with a moderate level of expertise in a particular subject, and thus may not be able to act independently.

Experience Level 3 – Mid Level. Good working-knowledge and well-rounded experience of subjects, with an ability to work independently, but may still need some guidance from senior staff.

Experience Level 4 – Senior Level. Thorough knowledge of and experience in the subject, with an anticipation and appreciation of the results of your actions and decisions. You can therefore act independently and take responsibility, with minimal advice from others.

The ideal required for passing this exam is for individuals to have no subjects at Level 1, minimal subjects at level 2, most subjects at level 3, with some subjects reaching level 4.

WRITTEN PAPER EXAMINATION:**Part A: PROFESSIONAL STANDARD & CONTEXT (Exam Paper A)**

	<p>This part of the exam is to test the Accreditation candidate's understanding of and his/her abilities and obligations in organization management and administration both in the workplace and on projects.</p> <p>The candidate will be tested on the knowledge/ understanding/ application of the following in the context of good landscape architectural practice. The key is to demonstrate that you have covered the stated subjects in your learning, practical experience and mentored studies.</p>
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1.0	Subject coverage. 1.0 Professional judgement, ethics and values
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1.1	REASONS FOR ACCREDITATION:
	Explain the value of becoming an accredited Landscape Architect.

Assessment: Demonstrating an understanding of 1.1

	<p>How does being an Accredited LA affect both yourself as an individual, and to the broader effect on others resulting from your actions, ethics and responsibilities as expected of a professional landscape architect, bound by the accepted Code of Conduct?</p> <p>Fully understanding the meaning and implications of being a professional person, and demonstrate that you have a working awareness of how this applies to an Accredited Landscape Architect as a "Steward of the Land".</p> <p>Explain the essentials of professional behaviour which addresses a greater goal, and how this may differ from those in purely commercial and business fields.</p> <p>Explain your understanding of the Landscape Architect's ethical obligations at the different levels: to individual Client; to other professionals we work with; to contractors; to the greater landscape itself with its users; to general sustainability; and to society as a whole.</p> <p>Suggest some solutions to possible ethical questions that may arise in the work of the landscape architect, and explain how these may be resolved :</p> <ul style="list-style-type: none"> - A close relationship that develops between Client and Consultant over time. - Potential discord that may arise from conflicting interest groups in the way projects are planned and designed. - Apparent illicit behaviour and conflict of interest by others during construction. <p>Explain your understanding of how the Code conditions "the accredited landscape architect has a social and economic responsibility to ensure that the natural ecological system is protected as far as possible" could affect your work.</p>
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1.2	<p>JUDGEMENT AND ETHICAL CONDUCT</p> <p>Understand the importance of acting in a responsible and professional manner in all ways, as defined the SILA's Code of Conduct.</p>
	<p>Assessment: Demonstrating an understanding of 1.2</p>
	<p>Explain the importance and purpose of a Code of Professional Conduct and ethics in the life of a professional person.</p> <p>Explain the most important requirements of the SILA's code of conduct, code of ethics and suggest situations where you might need to refer to the code.</p> <p>Explain what you think Accredited Landscape Architects should do if there appears to have been a conflict of interest and / or a breach of the code.</p>
1.3	<p>OVERALL PROFESSIONAL LANDSCAPE CONTEXT</p> <p>Understand the wider context of landscape in policies or institutions.</p>
	<p>Assessment: Demonstrating an understanding of 1.3</p>
	<p>Explain the role of IFLA and the IFLA Asia Pacific Region Landscape Charter.</p> <p>When looking at the broader, diverse and often complex contexts of ecology, history and culture, explain how the Accredited Landscape Architect should respond when these influences appear in your work.</p> <p>Describe instances where such influences have occurred in your work.</p>

2.0	Subject coverage. 2.0 Professional Practice Management
2.1	LEGAL FRAMEWORKS Understand how all types of organisation, including those related to landscape, have to operate under a legal framework.
	Assessment: Demonstrating an understanding of 2.1
	<p>In both public and private sectors, what are the responsibilities and obligations that affect the way those organizations are managed? Understand the different Govt. Agencies that set and regulate policies.</p> <p>Describe the type of the organisation you work for, and explain your understanding of the legal obligations of the organisation and its management. What are the different professional bodies and organizations locally?</p> <p>Explain the prime elements of Singapore's employment law and how these relate to employers and employees.</p> <p>Explain the need for professional indemnity insurance, and what are the main elements in landscape work that carry risks and potential liabilities.</p> <p>Explain how intellectual property rights may affect landscape organisations and individuals and what aspects of landscape related work may require protection under terms of contract or licence.</p> <p>Explain the principles of Confidentiality, Non-disclosure agreement and Official Secrets act, and explain how these might affect the work of individuals and organisations.</p>
2.2	LEGAL CONCEPTS AND FIRM'S RESPONSIBILITIES Understand the Landscape Architect's legal position in all types of work.
	Assessment: Demonstrating an understanding of 2.2
	<p>Have a broad knowledge of the various laws and situations that may have implications on liabilities and obligations.</p> <p>Explain your understanding of the various laws that may affect Landscape Architects such as contract law, statute law, criminal law, tort, limitations and negligence, and work health and safety laws. Discuss how these might apply to the Landscape Architect in the course of his or her work.</p> <p>Describe your understanding in legislation for Health and Safety and how you and your organisation deal with these issues both in terms of design responsibilities, construction and maintenance safety and long term safety for users of your projects.</p>

2.3	<p>PROFESSIONAL WORKING RELATIONSHIPS</p> <p>Understand ways to identify client requirements and expectations, and how to establish professional working relationships with Client representatives.</p>
	<p>Assessment: Demonstrating an understanding of 2.3</p>
	<p>Understanding the sequence and programming of a basic project. Explain the ways in which you will be able to interpret a Client's brief and particular requirements, and identify the process by which you engage the Client's representatives from the beginning of a project, and later as the project evolves.</p> <p>Explain how you would react if you felt the Client's expectation needed to be modified or in some cases corrected, such as if you consider the expectation to be impractical or may result in unfavourable conditions.</p> <p>Explain how you can maintain an honest, healthy and productive relationship with the Client's representatives and co-professionals from the start to finish of the project in spite of the conflicts that may arise in the process.</p> <p>Explain how a collaborative approach could be fostered to be mutually beneficial amongst the project team members.</p> <p>Explain how the requirements and the Landscape Architect's design intent should be safe-guarded in the spirit of the overall good of the project while maintaining cordial working partnerships with the co-consultants.</p>
2.4	<p>UNDERSTANDING FIRM'S SCOPE</p> <p>Understand the Scope of Services that may be offered by Landscape Architects for different types of project.</p>
	<p>Assessment: Demonstrating an understanding of 2.4</p>
	<p>Understanding the general duties of a Landscape Architect – the basic scope of work, the preparation of various studies and reports. Discuss the Basic Scope of Works and relate it to projects on which you have worked.</p> <p>Explain the various types of projects that Landscape Architects may become involved with, from advisory services to master planning, to full-service scope (from preliminary design stages through to completion of construction and maintenance), and how the work-scope is structured, and also typical duties not included.</p> <p>Explain the boundaries and limits of that scope, but equally how the landscape architect must integrate his or her work with other professions.</p>

2.5	<p>MARKETING AND PROMOTION</p> <p>Understand the ways in which companies and organisations promote themselves.</p>
	<p>Assessment: Demonstrating an understanding of 2.5</p>
	<p>Explain how companies may include becoming registered with authorities, and marketing themselves to Governments and commercial sector clients.</p> <p>Explain the type of services provided by the organisation you work for, and how the organisation might position itself in the market-place in offering services and expertise.</p> <p>Describe how the organization you work for promotes itself to potential clients, and how it displays its services and track-record so as to become widely known and suitable for consideration in a competitive market.</p> <p>Describe your observations on promotional material, competitions and bids you have seen or worked on and explain why you think these submissions have been successful or unsuccessful.</p> <p>Describe the different ways that landscape organisations can procure business. Explain your understanding of the success factors, and the risks organisations take in pitching for work and how this may affect business performance.</p>
2.6	<p>PROFESSIONAL APPOINTMENTS AND FEES</p> <p>Understand the different ways in which landscape organisations can be appointed, and the various ways fees may be quoted and paid for.</p>
	<p>Assessment: Demonstrating an understanding of 2.6</p>
	<p>Understanding contract law and liens and legal concepts.</p> <p>Explain the different modes of fee structure used in Singapore both in Government and private sector work. Explain your views on the risks or benefits that these structures may present.</p> <p>Understanding what is a valid contract and its legal terms. Explain how organisations, offering expertise rather than products, manage the balance between time, resources and overheads in order to remain profitable.</p>
2.7	<p>QUALITY MANAGEMENT</p> <p>Understanding quality systems and good management practice.</p>
	<p>Assessment: Demonstrating an understanding of 2.7</p>
	<p>Describe your understanding of quality management standards and quality assurance systems.</p> <p>Describe your experience with such standards and systems and explain your views on their effectiveness for good practice.</p> <p>Describe any quality systems or standards that are mandatory in Singapore.</p>

2.8	<p>THE PROJECT TEAM STRUCTURE</p> <p>To be cognisant of the status, expertise and knowledge of other professionals and experts who will be involved with your projects.</p>
	<p>Assessment: Demonstrating an understanding of 2.8</p>
	<p>Understand the role of the various members of the project and construction team.</p> <p>Understand the needs and constraints of other professionals.</p> <p>Ensure good practice and the high levels of cooperation needed in working with professionals from all disciplines.</p> <p>Describe how you understand the roles and scope of all other disciplines to be and how you may encounter them on different types of project, and how you would be able to work with them and facilitate their work as well as your own.</p> <p>Explain the various ways that collaboration would take place, and how you will play a vital role in problem solving at all levels and stages of a project from preliminary design to completion.</p>

Part B: LANDSCAPE PROJECT MANAGEMENT (Exam Paper B)	
	<p>An Accredited Landscape Architect is expected to have a high level of responsibility in his or her work and professional practice, and will be expected to give the most appropriate advice and solutions to their clients and other involved professionals to result in the best possible and optimum final product upon completion of the work. The sections below cover the broad scope in which most Landscape Architects will operate and have necessary expertise, knowledge and experience.</p>

3.0	Subject coverage 3.0 Planning & Statutory Control
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3.1	PLANNING SYSTEM
	Understand the structure of the Singapore Planning System
	Assessment: Demonstrating an understanding of 3.1
	<p>As a Landscape Architect working in a multi-disciplinary team of consultants it is important to understand that the statutory requirement to make planning submissions to different government agencies responsible for approving new development work.</p> <p>What is a Master Plan and what function does it have in the Singapore Planning System?</p> <p>Describe the meaning of different types of planning terms such as Gross Floor Area, Plot Ratio, & Site Coverage in the context of project work that you have been involved.</p> <p>Understand the significance of the 'Qualified Person' (QP) in a team of consultants and explain why a Landscape Architect is not a 'QP'.</p> <p>Be conversant with Building Plan applications, Waivers, & Temporary Occupation Permits; Certificate of Statutory Completion & the significance that these have in the design & construction of landscape.</p> <p>Understand the relevance of the Parks and Tree Act 2005 and the importance of greenery provision within a site and for roadside planting.</p> <p>Know about Singapore's Tree Conservation Areas & the legal protection for Heritage Trees.</p> <p>Be aware of National Parks and Nature Reserves and the statutory protection that relates to those areas.</p>

3.2	<p>STATUTORY SYSTEMS</p> <p>Know and understand the content and purpose of the Singapore codes, regulations and accreditation standards that affect Landscape Architects.</p>
	<p>Assessment: Demonstrating an understanding of 3.2</p>
	<p>Understanding of the Singapore planning and statutory system It is important to know the composition of the local planning system and the regulations, policies and procedures relevant to landscape architectural works typically carried out in Singapore. This will include submissions for planning and building control by other parties such as Architects and Engineers (see 3.1 above), but parts of which may involve the Landscape Architect. These will come from the following authorities.</p> <ol style="list-style-type: none"> 1. Building and Construction Authority, 2. Land Transport Authority 3. Ministry of the Environment/ National Environment Agency/ CBPU 4. National Parks Board 5. Public Utilities Board 6. Urban Redevelopment Authority 7. Singapore Civil Defence Force (Fire Safety Regulations) <p>This also includes environmental issues such as Pollution Control Act, Parks and Tree Act, statutory rules such as tree conservation area, buffer zones, plot ratios, development control, site coverage, GFA, PP, WP, BP stages and for accreditation such as BCA Green Mark, LEAF and ABC Waters.</p>

3.3	<p>UNDERSTANDING USER REQUIREMENTS</p> <p>Understand how to identify user, resident or stakeholder preferences and how to modulate expectations and to prioritize requirements.</p>
	<p>Assessment: Demonstrating an understanding of 3.3</p>
	<p>Explain how the team members of a project can identify and/or juggle the expectations and preferences of users, residents and stakeholders which may not be in alignment and who will be affected by the project.</p> <p>Explain how you, as part of the overall project team, might respond to unrealistic risky or inappropriate user expectations, conflicting and/or different requirements.</p> <p>Describe how the project team can engage and inform the public about proposed projects, if there is a need.</p>

3.4	<p>SITE & PROJECT ANALYSIS</p> <p>Understand ways that sites can be analysed to assess the assets, opportunities and constraints presented by the original condition of the site.</p>
	<p>Assessment: Demonstrating an understanding of 3.4</p>
	<p>Describe the techniques, research and study methods which will allow well-grounded analysis of site potential, character of the site, valuable assets, site selection principles and recommendations for appropriate actions that will affect planning and design decisions.</p> <p>Describe different survey types, contour analysis, mapping of inventory, various landuse concepts and terminology, Environmental Impact Studies.</p> <p>Describe the best presentation and documentation methods to ensure this information is shared by appropriate parties and that the documentation becomes part of the project's decision making process. This will affect the way the site will be altered to satisfy the brief, while taking account of sensitive issues such as conservation and efficient re-use of resources.</p>

4.0	Subject coverage 4.0 Technical Competency,
4.1	<p>TECHNICAL CAPABILITIES</p> <p>Understanding the materials and systems required for good detailing needed to support the design and documentation process.</p>
	Assessment: Demonstrating an understanding of 4.1
	<p>Demonstrate adequate knowledge in general site water management concepts and procedures, storm water management and terminologies, knowledge of Wetlands and its management.</p> <p>Demonstrate adequate knowledge in the different types of Ecosystems and Ecological concepts, methods of low impact intervention, preservation and rehabilitation.</p> <p>Demonstrate adequate knowledge in Soils, Soil groups, compositions, classification systems and concepts, understanding of slopes, its treatments and erosion issues.</p> <p>Demonstrate adequate knowledge in Concrete and Cement types, Mortars as well as masonry components and hardscape stone materials.</p> <p>Demonstrate adequate knowledge in landscape surface sizing, protection, finishes and concepts related to its sustainable and safe use.</p> <p>Demonstrate working knowledge in Irrigation components, systems and types and concepts related to its sustainable use.</p> <p>Demonstrate working knowledge in landscape lighting components, systems and types and concepts related to its sustainable use.</p>

5.0	Subject coverage 5.0 Landscape Construction Management
5.1	THE CONSTRUCTION PROCESS AND ITS DOCUMENTATION Understanding the design and documentation process and how documents are produced, and the various deliverables from the various parties.
	Assessment: Demonstrating an understanding of 5.1
	<p>Explain how detailed landscape plans, details, budgets, tender and contract documents are produced in collaboration with clients and other disciplines.</p> <p>Describe the normal design and documentation stages which are normally provided by the Landscape Architect for the design and construction stages of projects.</p> <p>Identify the range and purpose of drawings and documents that are likely to be needed in a building project, in which the landscape is only one part. Compare this to a project which is solely landscape works and does not involve other disciplines.</p> <p>Explain the sequence in deliverables of the various consultants (drawings and documents) and its significance and relevance to good coordination.'</p> <p>Identify the several situations where Architects and Engineers are required to submit plans to the Authorities, part of which may ask for landscape input.</p> <p>Explain how a budget for a project is formulated and at what stages Clients are likely to require budget updates and increased levels of detail. Explain the role of the Quantity Surveyor in this respect.</p>

5.2	<p>PREPARATION FOR THE TENDER BID</p> <p>Understanding and becoming familiar with the tender bidding process and contract procedures and documentation types.</p>
	<p>Assessment: Demonstrating an understanding of 5.2</p>
	<p>Explain the vital stages of getting the project started and ultimately built.</p> <p>Describe the most commonly used procedures in the tender process that will involve the Landscape Architect, such as addenda, questions and answers, site show-round and others, resulting in tender evaluations and reports.</p> <p>Identify the obligations and responsibility of each party involved in a tender process, and how these are recorded and agreed</p> <p>Explain how, prior to tendering, you would evaluate contractors to find those with appropriate skills, experience and financial capacity to invite for tender.</p> <p><i>Explain the role of specifications and the sort of information needed to explain to bidding contractors what is expected of them in terms of quality of materials, workmanship or other quality or performance requirements for project.</i></p> <p>Explain the different types of tender process commonly used in Singapore which may be used for different types of project or Client.</p> <p><i>Identify the different forms of Contract commonly used in Singapore, and explain the purpose of these documents. Explain your understanding of conditions of contract, preliminaries, insurance, warranties, guarantees and bonds, plans, details, models, graphics, specifications, schedule of rates and bill of quantities.</i></p> <p>Explain the relevance of the Tender Interview, Tender analysis, and Tender Recommendation process for the Main Building works and for the Landscape Sub-Contract works.</p> <p>Explain and discuss the role and importance of the Main Building contractor and the difference between a Nominated Landscape Sub-contractor and a Domestic Landscape Sub-contractor, and explain how the two types will feature in a tender process; also the role of a Direct sub-contract which may not feature in the tender process.</p> <p>Explain your views on advantages and disadvantage of Landscape sub-contractors being a Nominated Sub-contractor versus being a Domestic Sub-contractor,</p>

5.3	<p>CONTRACT ADMINISTRATION AND VARIATION ORDERS</p> <p>Understanding the role of the Landscape Architect in the overall monitoring and administration of the project.</p>
	<p>Assessment: Demonstrating an understanding of 5.3</p>
	<p>For most projects in Singapore, the Landscape Architect's monitoring role will be as part of a multi-discipline team, so much of the landscape implementation will be affected by and deeply integrated into the architecture and engineering of the project. Landscape Architects must attain a high degree of site experience and design expertise in order to safe-guard the landscape works.</p> <p>Describe the processes and strategies that are normally used to ensure that projects are built to the required quality and specifications, preferably within budget and on schedule.</p> <p>Explain the actions and routine activities that are used by consultants and project managers to keep projects on track, and that facilitate information sharing and distribution, and which provide a forum for solving problems and disputes quickly.</p> <p>Describe the two way information and query exchange that occurs throughout the construction process, and give an example of where a construction or quality control issue could arise on site, and explain how you would resolve it.</p> <p>Describe a typical field administration and review process, its monitoring and request for change orders (variations).</p> <p>Describe the processes that will be used in the case of a delay to the programme, a dispute, or a contractor's failure to perform. Explain how the Landscape Architect will be involved, even if not as the lead consultant. Describe necessary quality control measures (submissions and statements) during installation and the certification of progress claims.</p> <p>Explain the role of a project manager, who may be the client's key representative, and how you would respond to his/her requirements and preferred procedures.</p> <p>Explain the difference between a 'design-and-build' contract and a conventional contract, and a Novated contract, and how this may affect the Landscape Architect.</p> <p>Explain how the presence of significant existing trees on site and its preservation will influence and be accommodated by the permanent works, and how the temporary works on site may be guided and monitored to co-exist with and maintain the trees in good health. Describe tree protection criteria and how low impact design practices may be harnessed.</p>

5.4	<p>PROJECT TEMPORARY COMPLETION AND FINAL CONTRACT COMPLETION</p> <p>Understand the different ways that projects may be certified as complete, and how the completion process is organised.</p>
	<p>Assessment: Demonstrating an understanding of 5.4</p>
	<p>Explain the construction phase completion assessment and the usual ways that landscape works can be certified as complete at the end of the construction period (obtaining of TOP), and also the CSC process at the end of the Defects Period and the soft landscape Maintenance Period.</p> <p>Describe the sequence of events that will result in approval of project completion. This will be completion of construction, and this allows the client to utilise the site, so a run up of inspections and instructions will be needed to ensure everything is done.</p> <p>Explain what happens after initial handover, where the site is being used, but where defects and repairs or replacements may be needed. Concurrent to this will be the soft landscape maintenance period. Explain how this is implemented, managed and monitored.</p> <p>Describe the required condition of the site at the final handover at the end of the maintenance period.</p> <p>Explain Extension of Time, Liquidated Damages, Claims for Loss and expense. Explain the Final Accounts process and the role of the Quantity Surveyor.</p>

Part C: Urban Environmental and Ecological Issues (Exam Paper C)

Ecological and cultural considerations are part of environmental design. The candidates will be tested their understanding of sustainable practices and application of this knowledge to enhance the green city and expand the vision of a naturalised environment in Singapore

**6.0 Subject coverage 6.0
Skyrise Greenery and Urban Landscape**

6.1 SKYRISE GREENERY
Understanding the necessity of skyrise greenery in the high-rise/high-density urban landscape of Singapore.

Assessment: Demonstrating an understanding of 6.1

Demonstrate that you have sound knowledge of how skyrise greenery is achieved, with an overview of legislation, policies and regulations, as well as technical and horticultural methods of successful implementation.

Describe the differentiating factors between extensive and intensive green roofs, the use of green roofs and the landscape environmental deck concepts
Explain how this affects all disciplines involved in the design and construction of the buildings and environments on which these landscapes are located.

Explain the technical aspects of building landscapes on structure, and which involve integration between landscape elements and construction works. Explain how the Landscape Architect ensures the designed landscape works are fulfilled.

Describe the categories of landscape types that can be incorporated into the Garden City by good planning and design. What criteria have been used to make Singapore one of the greenest cities in the world, and how can these be sustained?

6.2	<p>LOCAL BIO-DIVERSITY</p> <p>Understanding local ecosystems and the purpose of expanding bio-diversity potential in the dense urban landscape.</p>
	<p>Assessment: Demonstrating an understanding of 6.2</p>
	<p>Explain your knowledge of Singapore’s geography and its regional context: to include geology, climate, vegetation patterns, hydrology, and human influences.</p> <p>Explain your knowledge of local ecosystems (eg. rain forest, wetland, estuary, mangrove and coral reef).</p> <p>Explain your knowledge of Singapore’s conservation policies and extent of parks and wildlife reserves. Describe the broad bio-habitats, and native fauna and flora sustained by the various habitats in Singapore and its neighbouring region.</p> <p>Explain the elements of conservation that can be achieved by Landscape Architects in landform protection, water courses, forest or mature tree protection, and protection of sensitive natural environments and wildlife.</p> <p>Explore the ways in which habitats can be enhanced and conserved to achieve a quantum increase in connected habitats.</p> <p>Explain Singapore’s current environmental accreditation schemes, environmental incentives and grants, and green awards and certifications including water schemes.</p> <p>Discuss the future visions and potential ways in which the Landscape Architect can influence and increase the overall greening of the city, and in particular affect the urban natural ecology and enhance community involvement.</p>

Part D: CONTINUOUS PROFESSIONAL DEVELOPMENT

**7.0 Subject coverage 7.0
Continuous Professional Development**

7.1 PROFESSIONAL DEVELOPMENT
Understand the goals of Continuous Professional Development.

Assessment: Demonstrating an understanding of 7.1

Explain the concept of life-long learning, and how it maintains your professional competence, and keeps you up-to date on changes relevant to your work.

Explain why you should continue to study, research, learn, compile, re-train and listen to others throughout your working life to upgrade your professional abilities.

Describe SILA's Accreditation CPD requirements, and how this affects you.

Describe how changes in policy, law and practice may affect the landscape profession and your area of practice, and how future changes may have an impact on your work and on the profession. (Policy and legal changes are often notified in advance).

Describe how you maintain your knowledge of products, materials, horticulture and techniques which conserve resources and create sustainable landscape.

7.2 UPDATING KNOWLEDGE
Ensure your practice, knowledge, skills and techniques are up to date.

Assessment: Demonstrating an understanding of 7.2

Be prepared to acknowledge your strengths and weaknesses, and identify where further learning and experience is necessary.

Regularly review your skill and knowledge levels in all areas of your work, and set out a future programme of improvement that you believe to be relevant.

Explain how BIM may affect your work and the work of Landscape Architects, Describe the advantages and disadvantages of BIM, and how BIM is managed.

Explain the idea of Reflective Practice, and demonstrate that you follow a reflective path in your activities.

Explain how you have reflected and learned from experience from a project

Reflect on and be aware of your strengths and abilities, and also weaknesses on subjects where you will need further or constant improvement

7.3	<p>PROFESSIONAL COMMITMENT</p> <p>Understanding that Landscape Professionals should show a commitment to development of their own profession.</p>
	Assessment: Demonstrating an understanding of 7.3
	Describe ways in which an individual or organisation can contribute to the development of the Landscape profession. Explain why this should be seen by all members of a profession as important and describe some examples.

Written Paper Examination Mark (total 100 marks)

	Exam Paper A	2 questions, 1 of which may be a multi-choice question. (25 marks)
	Exam Paper B	3 questions, 1 of which may be a multi-choice question. (40 marks)
	Exam Paper C	2 questions, 1 of which may be a multi-choice question. (25 marks)
	Exam Paper D	1 question, which may be a multi-choice question. (10 marks)

ORAL INTERVIEW EXAMINATION:

ORLA INTERVIEW EXAM STRUCTURE

The purpose of the oral interview exam is to determine the level of experience and understanding of the candidate as a professional Landscape Architect. Besides oral questions, quality of professional portfolio, a logbook and mentorship process will be used to assess the candidate's understanding and ability.

- Oral Interview Exam can only be taken after the candidate has passed the written exam*.
- Professional portfolio will be submitted at exam application time.
- Logbook, Candidate's progress report and Mentor's assessment report have to be submitted quarterly.
- Length of the interview is approx. 30 min.
- There will be three (3) examiners present.
- The candidate will be requested to brief the examiners on how the mentor has advised and assisted in the candidate's training, and what she/ he has gained through the mentorship process.
- The Candidate may be requested to explain and elaborate on the contents of the portfolio and logbook during the interview.

* Candidates who hold other professional Landscape architect licence/ certificate recognized by SILA may proceed to the oral Interview Exam stage without written exam, log book and mentorship process, subject to approval of Accreditation office and Expert panel in Advisory committee

Part E: MENTORSHIP AND LOGBOOK

The candidate has to register his/ her mentor and start recording the logbook minimum 24 months before the examination application.

(Note: 2016 and 17 exam takers' mentorship period will be shorter and/ or includes post exam application mentorship period. See table -1 below).

8.0. Mentorship**8.1 MENTOR NOMINATION AND REGISTRATION**

The candidate has to submit a mentor registration form with exam candidate and mentor's details to the accreditation office via email. A confirmation email will be sent to both the candidate and the mentor by the accreditation office.

Table 1 – length of mentorship period and registration deadline.

Exam year	Mentor Registration deadline	Min. mentorship period
2016	15 Jan 2016	1 year (1 Jan 2015 – 31 Dec 2016)
2017	15 Jan 2016	2 year (1 Dec 2015 – 31 Dec 2017)
2018 onward	31 Mar (2 years before scheduled exam year)	2 year (1 Apr – 31 Mar, 2year later)

8.2 CRITERIA FOR MENTOR

- A mentor must be someone who has been granted Instant Accreditation or who has held Accreditation for minimum two years.
- The Mentor should be someone who is willing to make a commitment to support the Candidate's professional development and provide honest and constructive feedback.
- Excludes members of current Accreditation Advisory Committee members, Accreditation Sub-Committee members and SILA council members.
- In the event that the mentor cannot continue his/her role, the candidate has to nominate a new mentor and submit a new registration form to the accreditation office.

The most appropriate choice of the mentor is a senior member who works within the same organization. However, a Mentor from other organization is acceptable as long as he/she can understand the candidate's work well and maintain meaningful contact without jeopardising their organization and/ or client's interests.

8 Core CPD points will be given to the Accredited Landscape Architect who mentor the exam candidate(s).

8.3	ROLE AND RESPONSIBILITY OF MENTOR
	<ul style="list-style-type: none"> - Give feedback to the candidate on their progress through regular contacts by conducting both formal (A <u>Commencement meeting</u> and <u>Quarterly review meetings</u>) and informal meetings. - Review the candidate's logbook and quarterly progress report. - Complete and submit Quarterly Mentor assessment report that record development of the candidate. - Inform the accreditation office when Candidates are ready for the examination from his/ her point of view.
	<p>1) THE FIRST MEETING</p> <ul style="list-style-type: none"> - After the successful mentor registration, the candidate has to arrange for a first meeting with the mentor. - During the meeting, the mentor will review and assess the Candidate's existing level of knowledge and understanding by going through the exam syllabus. - The mentor may record the candidate's level of knowledge, and fill up the <u>1st assessment report</u>. - The assessment report in PDF will be uploaded to the Accreditation FTP site by the mentor. The report should be shared with the candidate.
	<p>2) QUARTERLY REVIEW MEETINGS</p> <ul style="list-style-type: none"> - The candidate will have to arrange formal meetings towards the end of each quarter. - The meeting is for the mentor to assess the candidate's progress gain through work and continuous professional development. - During the meeting, the mentor and the candidate will review and discuss the candidate's logbook and Quarterly Progress Statement. Discuss the knowledge gain from the experience and reflect on it. - Through the discussion, the mentor should check what the candidate has learned, and how the candidate can apply the gained knowledge and understanding to actual work scenarios. - The mentor should assess the stage that the candidate has reached in each topic of the syllabus. This should be recorded in the assessment report. - Assessment report will be uploaded to the accreditation office FTP site by the mentor by the deadline. The report will be viewed and understood by the candidate.

Table 2 – formal meeting timing and assessment report deadlines

	2016 exam taker	2017 exam taker	2018 onward
1 st meeting timing	1 – 31 Jan 2016	1 – 31 Jan 2016	1 – 31 Apr
1 st report deadline	7 Feb 2016	7 Feb 2016	7 Apr
Q1 meeting timing	1 – 31 Mar 2016	1 – 31 Mar 2016	1 - 30 Jun
Q1 report deadline	7 Apr 2016	7 Apr 2016	7 July
Q2 meeting timing	1 – 30 Jun 2016	1 – 30 Jun 2016	1 – 30 Sep
Q2 report deadline	7 Jul 2016	7 Jul 2016	7 Oct
Q3 meeting timing	1 – 30 Sep 2016	1 – 30 Sep 2016	1 – 31 Dec
Q3 report deadline	7 Oct 2016	7 Oct 2016	7 Jan
Q4 meeting timing	1 – 31 Dec 2016	1 – 31 Dec 2016	1 – 31 Mar
Q4 report deadline	7 Jan 2017	7 Jan 2017	7 Apr
Q5 meeting timing		1 – 31 Mar 2017	1 - 30 Jun
Q5 report deadline		7 Apr 017	7 July
Q6 meeting timing		1 – 30 Jun 2017	1 – 30 Sep
Q6 report deadline		7 Jul 2017	7 Oct
Q7 meeting timing			1 – 31 Dec
Q7 report deadline			7 Jan
Q8 meeting timing			1 – 31 Mar
Q8 report deadline			7 Apr

The assessment reports are intended to be confidential between exam candidate, the examiners and Accreditation office.

9.0. Logbook																				
9.1	OVERALL STRUCTURE																			
	<p>All accreditation exam candidates are requested to submit a logbook which shall include details of project and a description of the practical experience.</p> <p>The log book should adequately cover the range of scope from master planning, concept design, design development, tender documentation, tender & contract Administration to the construction administration stage.</p> <p>The logbook should be reviewed and commented on by the mentor before the submission.</p> <p>Before each quarterly meeting with the mentor, the candidate has to produce a <u>Quarterly progress report</u> for the discussion.</p> <p>Quarterly progress report and logbook in PDF has to be uploaded to the FTP site by the candidate by the deadline.</p> <p>The logbook should record a minimum 24 month practical experience. 2016 and 2017 exam candidates' logbook will include retrospective experience and/ or post exam application parts (see table-3)</p> <p>The logbook and progress reports are intended to be confidential between exam candidate, the examiners and Accreditation office.</p>																			
	<p>Table 3 – accreditation logbook period</p> <table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="3">Minimum log book period</th> </tr> <tr> <th>Retrospective</th> <th>Actual</th> <th>Post application</th> </tr> </thead> <tbody> <tr> <td>2016 exam taker</td> <td>1 year (1 Jan 2015 - 31 Dec 2015)</td> <td>3 month (1 Jan 2016 - 31 Mar 2016)</td> <td>9 month (1 Apr 2016 - 31 Dec 2016)</td> </tr> <tr> <td>2017 exam taker</td> <td></td> <td>1 year 3 month (1 Jan 2016 - 31 Mar 2017)</td> <td>9 month (1 Apr 2017 - 30 Dec 2017)</td> </tr> <tr> <td>2018 onward</td> <td></td> <td>2 year (1 Apr of 2 years before exam taking year - 31 Mar of exam taking year)</td> <td></td> </tr> </tbody> </table>		Minimum log book period			Retrospective	Actual	Post application	2016 exam taker	1 year (1 Jan 2015 - 31 Dec 2015)	3 month (1 Jan 2016 - 31 Mar 2016)	9 month (1 Apr 2016 - 31 Dec 2016)	2017 exam taker		1 year 3 month (1 Jan 2016 - 31 Mar 2017)	9 month (1 Apr 2017 - 30 Dec 2017)	2018 onward		2 year (1 Apr of 2 years before exam taking year - 31 Mar of exam taking year)	
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9.2	SUBMISSION																																								
	<p>The logbook up to date and Quarterly progress report have to be submitted to the accreditation office toward the end of each quarter.</p> <p>The documents in PDF are to be uploaded to the Accreditation office FTP site by the candidate.</p>																																								
	<p>Table 4 – logbook and progress report submission period</p> <table border="1" data-bbox="352 533 1353 1160"> <thead> <tr> <th data-bbox="352 533 608 566"></th> <th data-bbox="608 533 871 566">2016 exam taker</th> <th data-bbox="871 533 1118 566">2017 exam taker</th> <th data-bbox="1118 533 1353 566">2018 onward</th> </tr> </thead> <tbody> <tr> <td data-bbox="352 566 608 663">Retrospective logbook submission period</td> <td data-bbox="608 566 871 663">1 Jan 2016 - 31 Jan 2016</td> <td data-bbox="871 566 1118 663" style="text-align: center;">/</td> <td data-bbox="1118 566 1353 663" style="text-align: center;">/</td> </tr> <tr> <td data-bbox="352 663 608 721">Q1 submission period</td> <td data-bbox="608 663 871 721">1- 31 Mar 2016</td> <td data-bbox="871 663 1118 721">1- 31 Jan 2016</td> <td data-bbox="1118 663 1353 721">1- 30 June</td> </tr> <tr> <td data-bbox="352 721 608 779">Q2 submission period</td> <td data-bbox="608 721 871 779">1- 30 Jun2016</td> <td data-bbox="871 721 1118 779">1- 30 Jun2016</td> <td data-bbox="1118 721 1353 779">1- 30 Sep</td> </tr> <tr> <td data-bbox="352 779 608 837">Q3 submission period</td> <td data-bbox="608 779 871 837">1- 30 Sep 2016</td> <td data-bbox="871 779 1118 837">1- 30 Sep 2016</td> <td data-bbox="1118 779 1353 837">1- 31 Dec</td> </tr> <tr> <td data-bbox="352 837 608 896">Q4 submission period</td> <td data-bbox="608 837 871 896">1- 31 Dec 2016</td> <td data-bbox="871 837 1118 896">1- 31 Dec 2016</td> <td data-bbox="1118 837 1353 896">1- 31 Mar</td> </tr> <tr> <td data-bbox="352 896 608 954">Q5 submission period</td> <td data-bbox="608 896 871 954" style="text-align: center;">/</td> <td data-bbox="871 896 1118 954">1- 31 Jan 2017</td> <td data-bbox="1118 896 1353 954">1- 30 June</td> </tr> <tr> <td data-bbox="352 954 608 1012">Q6 submission period</td> <td data-bbox="608 954 871 1012" style="text-align: center;">/</td> <td data-bbox="871 954 1118 1012">1- 30 Jun2017</td> <td data-bbox="1118 954 1353 1012">1- 30 Sep</td> </tr> <tr> <td data-bbox="352 1012 608 1070">Q7 submission period</td> <td data-bbox="608 1012 871 1070" style="text-align: center;">/</td> <td data-bbox="871 1012 1118 1070">1- 30 Sep 2017</td> <td data-bbox="1118 1012 1353 1070">1- 31 Dec</td> </tr> <tr> <td data-bbox="352 1070 608 1160">Q8 submission period</td> <td data-bbox="608 1070 871 1160" style="text-align: center;">/</td> <td data-bbox="871 1070 1118 1160">1- 31 Dec 2017</td> <td data-bbox="1118 1070 1353 1160">1- 31 Mar</td> </tr> </tbody> </table>		2016 exam taker	2017 exam taker	2018 onward	Retrospective logbook submission period	1 Jan 2016 - 31 Jan 2016	/	/	Q1 submission period	1- 31 Mar 2016	1- 31 Jan 2016	1- 30 June	Q2 submission period	1- 30 Jun2016	1- 30 Jun2016	1- 30 Sep	Q3 submission period	1- 30 Sep 2016	1- 30 Sep 2016	1- 31 Dec	Q4 submission period	1- 31 Dec 2016	1- 31 Dec 2016	1- 31 Mar	Q5 submission period	/	1- 31 Jan 2017	1- 30 June	Q6 submission period	/	1- 30 Jun2017	1- 30 Sep	Q7 submission period	/	1- 30 Sep 2017	1- 31 Dec	Q8 submission period	/	1- 31 Dec 2017	1- 31 Mar
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Part F: PROFESSIONAL PORTFOLIO

10.0. Professional portfolio	
10.1	PURPOSE OF PORTFOLIO
	<p>The candidate has to submit a portfolio of the projects worked on. (preferably works in Singapore).</p> <p>The purpose of the portfolio is to showcase the candidate's experience gained through professional training.</p> <p>The portfolio is to assess his/her experience with their approach to critical thinking. The candidates are expected to demonstrate their problems solving skills through the material in the portfolio.</p> <p>The portfolio has to be submitted to accreditation office at the time of exam application.</p> <p>The portfolio is a document that is intended to be confidential between exam candidate, the examiners and Accreditation office.</p>
10.2	PORTFOLIO SUBMISSION
	<p>Suggested material for the portfolio (A3 size PDF/ a set of A3 size hardcopy)</p> <ul style="list-style-type: none"> a) Master planning and Concept design presentation material, b) Design Development presentation material c) Samples of working drawing (softscape and hardscape) d) Pictures of site under construction e) Pictures of completed project <p>Notes:</p> <ul style="list-style-type: none"> 1) The submission material must be entirely your own work 2) No more than 10 pages/ max. 5mb per page 3) Submitted material must be legible and clear. <p>Project name, location, category, site area, and date of presentation/ site visit to be recorded, including site pictures with a brief description.</p> <p>For presentation materials, the involvement (on an individual basis) of the candidate should be described, and should not show work by other team members.</p> <p>Portfolio submission deadline: To be advised.</p>

Part G: ORAL INTERVIEW EXAMINATION

	<p>11.0. Oral Interview Examination</p> <p>ORAL INTERVIEW EXAMINATION</p> <p>The candidate will be tested on his/her core competence in aspects of professional landscape architectural practice covered in the syllabus and awareness of any current issues on practice and the profession.</p> <p>This will include some or any of the subjects set out in the syllabus, and may include technical questions as well as questions on administration, legal issues, regulatory and policy and environmental matters, and professional practice.</p>
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Oral Interview Examination Mark (total 100 marks)

	Part E	Mentorship and Logbook (30 marks)
	Part F	Portfolio (20 marks)
	Part G	Questions (50 marks)