

## LAND SURVEYORS BOARD EXAMINATION

### **INSTRUCTIONS TO CANDIDATE FOR PRACTICAL SUBJECTS**

- 1 Candidates shall acquaint themselves thoroughly with the practical experience and knowledge before they sit for the practical examinations. They must have their own assistants and equipment for the purpose of sitting for the practical examinations. The assistants cannot be registered surveyors. All works (field and office) for the practical examination **must be done independently** by the candidate.
- 2 Each candidate shall be allotted an Index number. The candidate shall mark each page of his answer scripts (including field records, sketches, computation sheets, printouts, plans and softcopy documents) with the index number. Any **candidate shall be liable to disqualification for writing his name on the answer scripts.**
- 3 Candidates shall personally obtain data for the cadastral surveys. Where necessary, the Board will issue them the letter to carry out the cadastral surveys.
- 4 EDM instruments must be calibrated and GPS receivers must be tested for gross-error by candidates before being brought into use. The calibration / testing can be conducted before the commencement date of the examination. Candidates must confirm with the Examiner the date(s) of the calibration / testing before he commence with the calibration / testing. Arrangement for calibration / test at the test base shall be made with the Examiner's instruction. Candidates are required to check the EDM test data themselves using the relevant approved proven software.
- 5(a) The practical subjects for cadastral surveys are Land Lot Survey and Strata Survey. The time frame for completing the practical subjects shall be **8 weeks starting from the commencement date of the examination irrespective of the number of subjects taken.**
- 5(b) The candidate must submit a field schedule (date and time) to the examiner before commencement of the subjects. The field schedule is fixed and the examiner will conduct field examinations during this period. Hence, the candidate shall be on site at all times during that period. He/she must inform the examiner in advance should he/she need to be away from the site or there is a change of the field schedule. If the examiner finds the candidate not on site, he will immediately inform the Registrar in writing. The candidate shall submit a written explanation for his/her absence to the Registrar. The Board may bar such candidate from sitting for that particular subject for a period of up to one year from the date of the Board's decision if the candidate's explanation is not acceptable to the Board.
- 5(c) If the candidate is found to be lacking in practical experience and knowledge during the field examination, the examiner will immediately submit a report to the Registrar.
- 5(d) Candidates can carry-out the computations and drafting work at their own premises.
- 6 Candidates are required to digitally record field data for the surveys. The raw data and processed data have to be submitted.
- 7 Each of the completed Practical Subjects survey, together with a Survey & Examination Reports, is to be submitted **directly to the Registrar by the due date.** The submission will be deemed incomplete if any of the 4 components viz. field work; computation (except for strata survey), drafting and report are not fully completed according to requirements.
- 8 Candidates shall be subjected to an Oral Examination during which he/she is required to deliver a formal presentation of his/her work to the examiner. The Oral Examination may include a proficiency test in data processing. The examiner will notify the candidate as to the date and venue of the oral examination. The LSB Examination Committee may sit in for the oral examination.

9 The passing mark is 60% for each subject. The marking scheme is as follows:

a. Field work:	40 %
b. Office Processing:	40 %
c. Examination Report:	10 %
d. Oral Examination:	10 %
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Total:	100 %

10 For Land Lot Survey:

- (a) The candidate shall plant and carry out GPS survey of at least one new ISN marker. He must occupy or connect his traverse to the new ISN markers and at least one of the new ISN markers must be accepted and used in the computation.
- (b) Verification or refinement of lot boundary coordinates shall be carried out before adoption. The relevant LandXML file shall be submitted to the Registrar. No results will be returned to candidates and the schema checking procedure laid out in 13(d) will not be applied here.
- (c) The Examination Report shall include the "Checklist for Job Submission" forms. (See Annexe A)
- (d) The candidate shall prepare a subdivision plan [similar to submission to URA under the Planning Act (Chap 232)] for the land lots under survey.
- (e) Any other relevant letter/forms/documents necessary for the submission.

11 For Strata Survey:

- (a) The survey plan shall follow the STP format.
- (b) The candidate shall carry out a verification survey of the land lot where the building is subdivided into separate strata lots.
- (c) The Examination Report shall include the "Checklist for Job Submission" forms. (See Annexes A and B)
- (d) The candidate shall prepare a strata subdivision plan [similar to submission to URA under the Planning Act (Chap 232)] for the strata lots under survey.
- (e) The candidate shall prepare the schedule of strata units for share value acceptance by the Commissioner of Buildings.
- (f) Any other relevant letter/forms/documents necessary for the submission.
- (g) The mark allocations shall be in the ration of 70:30 for Strata Survey and Verification Survey respectively.

12 The Practical Subjects survey must comply with the prevailing Land Surveyors Rules, Boundaries and Survey Maps Act and BSM (Conduct of Cadastral Surveys) Rules governing the conduct of cadastral surveys and conform to the LSB Circulars, CS Circulars, Guidelines and Specifications for GPS Surveys of ISN markers, latest CS Directive on Cadastral Survey Practices, Instructions to Candidate for Practical Subjects, any instructions given by the Examiner during the period of the examination, and the established procedures and practices in use at the time of examination.

13 The survey and submission for the Practical Subjects shall follow closely to the requirements of the current cadastral practices.

- (a) The candidate is permitted to use any available commercial or private software to process field data.
  - (b) The candidate shall prepare and submit the relevant LandXML file (in digital and hardcopy) for the survey. The format and structure of the LandXML file shall strictly follow the "Singapore LandXML Mapping and Structure" dated 11<sup>th</sup> October 2017, which is available in the SLA corporate webpage (weblink: <https://www1.sla.gov.sg/newsroom/circular>).
  - (c) The candidate **shall not submit the final LandXML file through RS Portal**.
  - (d) The candidate may submit the final LandXML file to the Registrar or Examiner for schema checking any time during the period of the examination. The checking report will be returned to the candidate as soon as it is generated (around 2-3 working days). The candidate may amend/revise the final LandXML file accordingly and re-submit to the Registrar or Examiner for schema checking again. The candidate will be given a maximum of **three (3) times only** for the schema checking submission to the Registrar or Examiner. Therefore, the candidate is strongly advised to double check the LandXML file before submission. The candidate shall not seek external advice or clarification on the checking report from the Registrar, Examiner, SLA or any Registered Surveyor.
  - (e) In addition, the candidate shall prepare all relevant sketches and plans (in **PDF & DWG** format and hardcopy) for submission to the Registrar at the end of the examination period. For example, traverse sketches, demarcation sketches, party-wall and detail/encroachment sketches, Certified Plan (CP), Strata Certified Plan (CPST) and any other sketches/plans that are deemed relevant for the examination.
- 14 Candidates shall accept full liability in the event of claims arising from any damage, injury or other eventualities caused while doing the practical examination. Also, candidates and their assistants must maintain proper conduct and behaviour in performing the practical examination.
- 15 Candidate who, without valid reasons, fails to start work, fails to complete or submit an incomplete work for any practical subject by the closing date shall be deemed to have sat and failed the examination. He shall be allotted zero score.
- 16 Under Section 24(1) and 24(2) of Land Surveyors Rules, candidate is not allowed to withdraw from the examination after collecting the Practical Subjects paper on the first day of examination.
- 17 If at any time the candidate is unsure of the requirements or instructions of the examination, to contact the Examiner directly for clarifications.