Study Guide:

In answering these questions, candidates should make references to texts, cases and other materials where appropriate in the same manner as is done in Survey Law in Canada and in Geomatica.

In some instances below, references are not included with a question. In those instances, the candidate should assume that the question asks them to synthesize from several of the reference material.

Any mention below of sections or chapters refers to Survey Law in Canada unless noted otherwise.

Sample Questions:

Q1.

a. Under what circumstances are water boundaries ambulatory and under what circumstances are they not ambulatory? What are the criteria for a change in the extent of ownership due to a change in the location of a water boundary? Why do many jurisdictions require a careful survey of water boundaries?

   See sections 5.52 to 5.54, 6.87 to 6.100 and 10.300 to 10.305.

b. Explain the circumstances under which locating the current water's edge would be inappropriate for retracing a water boundary.

c. Explain the circumstances under which locating the current water's edge would be appropriate for retracing a water boundary.

Q2. What are the effects on an owner’s riparian or littoral rights when fill is placed or excavation occurs along or over a water boundary? Does it make a difference if the work is carried out by or on behalf of the owner or by some other person?

   See sections 5.20, 5.46 to 5.51, 5.52 to 5.54, 6.30 to 6.32 and 10.295 to 10.307 and the cases mentioned.

Q3. Both coastal and inland water boundaries can move by virtue of natural forces or artificial (man-made) means. Discuss the various ways in which changes to water boundaries can occur and their effect on the extent of ownership of a parcel fronting on the body of water.

   See sections 5.52 to 5.54 and 6.87 to 6.100, 5.20, 5.46 to 5.51, 5.52 to 5.54, 6.30 to 6.32 and 10.300 to 10.305 and the cases mentioned.

Q4. Discuss the common law doctrines of accretion and erosion. Describe the criteria for each. Describe the way in which lawful accretion might be apportioned between owners in various circumstances.

   See sections 5.52 to 5.54, 5.83 to 5.89, 6.87 to 6.100, 8.54 to 8.57 and 10.300 to 10.305.

Q5. What are the traditional riparian rights according to the common law? Provide a few examples of where these traditional rights have been abrogated by statute.

   See sections 5.50 to 5.54, 6.89 to 6.94 and 10.306.
Q6. How is navigability of a body of water determined? How does navigability affect the rights of an owner of adjacent land? Does it make a difference whether the parcel fronts upon the body of water or if the body of water is contained within or passes through the parcel?

*See sections 5.14 to 5.21, 6.10 to 6.12, 6.95 to 6.100 and 10.287 to 10.291.*

Q7. There are several court cases that have, over many years, given guidance to the courts with respect to natural boundaries. Some, for example, are: Clarke v. The City of Edmonton; Howard v. Ingersoll; British Columbia v. Neilson; Esson v. Mayberry; Lee v. Arthur; Rotter v. Canadian Exploration Ltd. There are several others. Outline the substance of one of these cases or another case (provide case citing) and discuss what effect it has had on the way land surveyors treat water boundaries.

Q8. The nature and limits of jurisdictions and property rights related to water depend on how the law classifies the water concerned. Give five examples of such legal categories and describe how property rights might be affected by them.

*See sections 5.14 to 5.21*

Q9. What are the ways in which maritime boundaries between countries or other jurisdictions are determined?

*See sections 5.97 to 5.111.*

Q10. A 1914 Crown grant of land excepts a one-chain strip along the White River upon which the surveyed parcel fronts. Over the years, erosion has occurred over part of the one-chain strip’s frontage and accretion has occurred adjacent to other parts of the strip’s frontage. How do these changes affect the boundaries of the grantee’s parcel?

*See sections 6.78 to 6.81 [See footnote 92, esp. Monashee Enterprises Ltd. v. Minister of Recreation and Conservation for B.C. (1981)]*

Q11. An Act of the British Parliament gave the Crown in right of Canada ownership of lands for certain purposes. Name the statute, give the year of enactment and name three of those purposes.

*See sections 1.57 to 1.67, 4.09 to 4.22 and 10.279 to 10.284.*

Q12. Name four maritime zones and briefly describe their characteristics.

*See section 5.90 to 5.96.*

Q13. How, and by whom, are boundaries created? Give examples.

*See sections 4.01 to 4.06 and 4.42 to 4.64.*

Q14. What are the guiding principles to be followed when re-establishing lost or obliterated boundaries?

*See sections 4.113 to 4.121, 4.137 to 4.142, 4.42 to 4.64, 5.86 to 5.87, 7.01 to 7.05, all of Chapter 8.*

Q15. Through a long history of decisions, the courts have established a hierarchy of evidence to be considered by a land surveyor when re-establishing boundaries. In alphabetical order, the categories are:

- Fences or possession which can reasonably be related back to the time of the original survey;
- Measurements;
- Natural boundaries;
• Original monuments.

Place these in the order of hierarchy, give reasons for your choice and give an example of the circumstance in which each would apply.

*See several sections/locations in chapter 4.*

Q16. Discuss the characteristics of and criteria for adverse possession and for prescription. What are the differences between them?

*See sections 2.54 to 2.56, 2.87 to 2.98, 4.28 to 4.29, 4.74 to 4.88, 10.102 to 10.131 and 10.311 to 10.314.*

Q17. Explain how a roadway can become a public highway.

*See sections 2.57 and 2.58.*

Q18. Several jurisdictions have provisions in their statutes for “special surveys”. Describe their purpose and give a brief description of the methodology.

*See sections 8.73 to 8.76.*

Q19. Describe the general principles of typical condominium or strata title legislation.

*See sections 2.126 to 2.132.*

Q20. How are the boundaries of an air space parcel defined where the air space parcel is not internal to a building? Give an example.

*See sections 2.126 to 2.132, certain provincial statutes and regulations. Examples could be in the form of a quick sketch showing elevations for a bridge or pedestrian overpass or a building built on stilts over an old church or other structures where the church or other structure remains under different ownership than the air space parcel over or around it or both, etc.*

Q21. In Canada, some mineral interests are held by the Crown and some are privately held, sometimes by the owner of the land and sometimes by others. Describe how mineral interests are held by the various parties both within and outside of the Torrens system of land titles.

*See sections 3.81 to 3.87.*

Q22. How are petroleum and natural gas leases protected within and outside of the Torrens system of land titles?

*See section 3.87 to 3.90, various provincial statutes and regulations and practices.*

Q23. Give an example of each of the following types of descriptions:

a. a) Metes and bounds
b. b) Centreline (not the centreline of a water body)
c. c) Parcel with a water boundary
d. d) By exception
e. e) By aliquot parts

Q24.

a. If there is an error or a misclosure in a metes and bounds description, how do you proceed to establish the boundaries by survey?

*See sections 4.92 to 4.93.*
b. If there is an ambiguity in a metes and bounds description, how do you proceed to establish the boundaries by survey? Cite a case that would provide guidance.

c. If there is a "misdescription" in a metes and bounds description, how do you proceed to establish the boundaries by survey? Cite a case or other reference that would provide guidance.

Q25. Explain the process of bornage and compare it to the statutory confirmation of a boundary.

See sections 8.81, 8.82, 8.88 to 8.98 and 10.185 to 10.218.

Q26. In Québec, by statute, a land surveyor acts as a public officer for some of his or her duties but not, when performing other duties. Distinguish the difference and discuss your views on whether land surveyors in other jurisdictions also act as public officers and, if so, when.

See sections 10.219 to 10.230.

Q27.

a. In Québec, there are strict laws governing the maintenance and custody of the records of a land surveyor. Describe how a land surveyor must maintain and store records and what must happen to them when he retires, is incapacitated or dies.

See sections 10.269 to 10.276.

b. Compare the requirements discussed in question 27a with similar requirements in another province, citing a reference.

Q28. What federal statute applies throughout Canada pertaining to the removal, damage or destruction of survey monuments? Describe the provisions of the statute and, with reference to a court case, explain when it would or would not apply.

See sections 11.56 to 11.58 and the Criminal Code.

Q29. Describe “opinion evidence as an exclusionary rule” and discuss why it is admitted when tendered by an expert witness.

See sections 7.43 to 7.58.

Q30. Land surveyors are often called as witnesses in survey or boundary related legal proceedings. In some cases, the land surveyor will give individual (or lay) testimony and, in others, will act as an expert witness. What is the difference? Giving examples, describe how the testimony differs.

See sections 7.51 to 7.58.

Q31. Discuss the limitations of actions and why and how they are imposed.

See sections 2.87 to 2.92.

Q32.

a. Explain how surveying the boundaries of a recently settled aboriginal land claim would differ from surveying an established reserve in a territory. Cite appropriate authorities.

b. Explain how surveying the boundaries of a recently settled aboriginal land claim would differ from surveying an established reserve in a province. Cite appropriate authorities.

Q33. The principle of negligent misrepresentation first set out in Hedley, Byrne v. Heller [1964] and further refined by the Supreme Court of Canada in Edgeworth Construction Ltd. v. N.D. Lea & Associates Ltd. [1993] 3 S.C.R. 206, has had an impact on the way all
professionals carry on their practice. Discuss the impact that the principle has had on the land surveying profession.

Q34. Explain how the decision of Huebner v. Wiebe [1984] has influenced the profession of land surveying.

Q35. There are many references to Irving Refining Ltd. v. Eastern Trust Co. (1967) in *Survey Law in Canada*. Explain why.

Q36. Explain how the elements that are common to Palmer v. Thornbeck (1877) and South Australia State v. Victoria State [1914] and how they would pertain to other locations.

Q37. The use of "mean high water mark" in descriptions creates a problem in Canada. Explain why and cite a case illustrating this.

Q38. There are several ways in which boundary uncertainties can arise. Explain what they are and how the uncertainty results and what might be a remedy.

Q39. There are at least three ways to resolve boundary uncertainties. Compare them by explaining the advantages and disadvantages of each form the point of view of: the land owner, the surveyor who has the land owner as a client, the neighbouring property owners, other surveyors, the public.

Q40. The legal maxim *ei qui affirmat, non qui negat, incumbit probatio* is illustrated in Palmer v. Thornbeck (1877). Explain how this pertains, especially with respect to the issues of evidence in this case.

Q41. Explain the difference between parol evidence and viva voce evidence.

Q42. Several provinces have parcels under a land registry system and under a land titles system. Explain whether there would be any differences in a retracement survey in one system compared to the other.

Q43. Explain the difference between liability in negligence and liability in contract.

Q44. Explain the difference between professional negligence and negligence in law and discuss whether each would lead to a disciplinary action and, if so, how.

Q45. Explain the "judicial function" of surveyors and how it pertains to the normal activities of a surveyor.

Definitions:
The following is a suggestion of terms or phrases, for which definitions or explanations would be asked. This list is not exhaustive.

a. Caveat
b. Allodial title
c. Dominant tenement
d. Servient tenement
e. Estoppel
f. Quit claim
g. Right of reverter
h. Normal baselines
i. Prescription
j. Adverse possession
k. Hearsay evidence
l. Ordinary high water mark
m. Bornage
n. Avulsion
o. Meander line
p. Escheat
q. Conventional Line
r. Littoral
s. Equidistant Principle
t. *ad medium filum aquae*
u. Privilege
v. Easement
w. Right of Way
x. Boundary
y. Riparian
z. Air Space Parcel
aa. Profit à prendre
bb. Covenant
c. *dominus soli est coeli et inferorum vel usque ad infero*
d. *ad medium filum viae*
e. *cujus est solum, ejus est usque ad coelum et ad inferos*
f. *ei qui affirmat, non qui negat, incumbit probatio*
g. *falsa demonstratio non nocet*