## ASSOCIATION OF CANADA LANDS SURVEYORS BOARD OF EXAMINERS

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## PROFESSIONAL EXAMS – ITEM 2 PROPERTY RIGHTS SYSTEMS ON CANADA LANDS

October 2011

This examination consists of 13 questions on 3 pages.

|       |  | <u>M</u>     | <u>arks</u> |
|-------|--|--------------|-------------|
| Q. No | <u>Time: 3 hours</u>   | <u>Value</u> | Earned      |
| 1     | How do lands become Canada Lands?  | 5            |             |
| 2     | What is the Quad lot system?   | 5            |             |
| 3     | What are the reasons why land would be added to an Indian Reserve?   | 10           |             |
| 4     | Explain what is a "specific claim" and how it may relate to property rights.   | 10           |             |
| 5     | What lands are managed by the Yukon government?  | 15           |             |
| 6     | How can Indian Reserve land be sold?   | 5            |             |
| 7     | Describe the evolution of the concept of the juridical continental shelf from 1945 to the present.   | 5            |             |
| 8     | What level of jurisdiction does Canada (federal government) associate with the following geographic areas: a) Strait of Georgia, b) 13 nautical miles south of Anticosti Island in the Gulf of St. Lawrence, c) within the Bay of Fundy, d) 210 nautical miles southwest of the nearest point on Vancouver Island, e) the middle of Lancaster Sound (north of Baffin Island)?  | 5            |             |
| 9     | Can a State (i.e. a country) claim jurisdiction, and if so, to what extent, to: a) the fore-shore (between the high-water and low-water lines), b) an area 18 nautical miles offshore, c) an area 210 nautical miles offshore, when the foot of slope is 170 nautical miles offshore, d) an area 10 nautical miles from a low tide elevation which is 8 nautical miles seaward of the mainland, e) an area 150 nautical miles seaward of its coast but 140 nautical miles seaward of a foreign coast and the maritime boundary between the two States has not been resolved? | 5            |             |

| 10 | The continental shelf delimitation line between Canada and Greenland was agreed to in 1973 and coordinate values of turning points were derived from a Canadian nautical chart whose shoreline was compiled from uncontrolled air photo mosaics which were loosely geographically referenced by a few SHORAN trilateration survey points 300 km. apart whose coordinate values were known in NAD-27. Suggest a practical means how Canada and Denmark could convert these points into modern geodetic coordinates compatible with GPS.             | 10  |  |
|----|--|-----|--|
| 11 | On the attached map, construct YOUR version of an equitable delimitation line for offshore resources between the island of Newfoundland and the province of Quebec in the Gulf of St. Lawrence.  In an essay form answer, justify your construction methods.   | 10  |  |
| 12 | At a proposed well-site, there are the following data:  a) 190 nautical miles to nearest territorial sea baseline, b) 65 nautical miles in the direction of the coast to the foot of the slope, c) the water is 3100 metres deep, d) 105 nautical miles in the direction of the coast to the 2500-metre isobath (depth contour), e) the sedimentary rock is 1100 metres thick. Is this well-site within the juridical continental shelf, as defined by Article 76 of the Convention on the Law of the Sea (1982)? (1 nautical mile = 1852 metres.) | 5   |  |
| 13 | Canada needs to submit its claim to a continental shelf to the UN Commission on the Limits of the Continental Shelf in 2013. What role(s) do the following bodies have in preparing that submission: a) Canadian Hydrographic Service, b) Geological Survey of Canada, c) Dept. of Foreign Affairs, d) Association of Canada Lands Surveyors?  | 10  |  |
|    | Total Marks:   | 100 |  |

