

ASSOCIATION OF CANADA LANDS SURVEYORS

BOARD OF EXAMINERS

SCHEDULE III / ITEM 1 ACTS AND REGULATIONS RELATING TO SURVEYS OF CANADA LANDS

March 2009

(March 18, 1999 Regulations)

Notice to Candidates:

This examination is based on the e-Edition to the Manual of Instructions for the Survey of Canada Lands.

This examination consists of 6 questions on 3 pages.

<u>Q. No</u>	<u>Time: 3 hours</u>	<u>Marks</u>	
		<u>Value</u>	<u>Earned</u>
1	Provide the answer by a single number, in the units stated, for each of the following questions as they pertain to surveys of Canada Lands by a Canada Lands Surveyor: <ol style="list-style-type: none"> a. the number of pits in a standard P.Pit.M. configuration for referencing a CLS Standard Post. b. the ideal radial spacing of bearing trees around a monument, expressed in degrees of arc. c. the number of creek claims which a Yukon placer miner may locate in a sixty day period on a single creek with historical claim activity in the Klondike goldfields, pursuant to the <i>Placer Mining Act (Yukon)</i>. d. the maximum length, in feet, of a rectangular mineral claim located pursuant to the Canada Mining Regulations where the width of the claim is 4,500 feet. e. the number of Units in Section 10, Grid Area 70°00', 135°00' as prescribed by the Canada Oil and Gas Land Regulations. f. the number of Units in Section 1, Grid Area 70°10', 135°00' as prescribed by the Canada Oil and Gas Land Regulations. g. the number of days a locator of a quartz mining claim in Yukon has available to record a claim located 61.5 miles from the office of the mining recorder. h. the accuracy of plotting, expressed in millimetres, of the position a natural boundary on an official plan whose scale is 1:5,000. i. the number of angles in a closed traverse which has an allowable angular misclosure of 0°01'40". j. the minimum width, in inches, of the upper one foot squared portion of a legal post made from a standing tree for location of a claim pursuant to the Canada Mining Regulations. k. the optimum number of Coordinate Control Monuments available for connection of a legal survey within a Coordinated Survey Area. l. the maximum area, expressed in acres, of a non-iron and mica mineral claim which may be located pursuant to the <i>Quartz Mining Act (Yukon)</i>. 	2 marks each = 40	

	<p>m. the maximum number of courses permitted between successive lines of bearing control for an official survey.</p> <p>n. the maximum number of lots which may be included in a certificate of title issued pursuant to the <i>Land Titles Act (Yukon)</i>.</p> <p>o. the maximum north-south length, in feet, of a location for the mining of iron and mica pursuant to the <i>Quartz Mining Act (Yukon)</i>.</p> <p>p. the maximum area, in acres, of territorial lands in Yukon which may be sold to any one person pursuant to the <i>Territorial Lands (Yukon) Act</i> without approval of the Commissioner in Executive Council.</p> <p>q. the maximum length of a placer mining claim in Yukon, measured in feet along the base line, allowed on expansion of the claim by the mining recorder pursuant to the <i>Placer Mining Act (Yukon)</i>.</p> <p>r. the minimum number of CLS Rock Posts required to be set on a fixed bottom-mounted offshore development platform in locations safe from damage by operations, as prescribed in the Canada Oil and Gas Land Regulations.</p> <p>s. the number of years by which a group of 16 quartz mining claims in Yukon may be kept in good standing by the performance and recording of \$ 8,000.00 of eligible representation work on one or more of the claims.</p> <p>t. the total area, expressed in square feet, which will be reserved to the Crown in the grant of a parcel of land to NorthwesTel Inc. straddling the Yukon/Northwest Territories boundary for a microwave repeater site, where the parcel is a square with sides measuring 600.0 feet and its boundaries are closely parallel and perpendicular to the territorial boundary.</p>	<p>2 marks each = 40</p>	
<p>2</p>	<p>Notwithstanding certain subsequent delegations of administrative and operational authority, Acts of Parliament and Territorial Legislative Assemblies and Regulations brought into effect pursuant to those Acts, assign specific responsibilities to Ministers of the Crown, Crown entities and appointed officials.</p> <p>Give the name of the <u>single</u> Minister, entity or appointed official having the statutory responsibility for each of the following:</p> <p>a. amendment of Schedule 1 to the <i>National Parks Act</i> to add the Gulf Islands National Park Reserve.</p> <p>b. authorization and direction of the survey of the base line of any creek or river pursuant to the <i>Placer Mining Act (Yukon)</i>.</p> <p>c. control over all matters relating to the admission and qualifications of candidates for a Canada Lands Surveyor commission and to their examination.</p> <p>d. granting permission for the placement of any work or addition to any work within ten feet of the international boundary between Canada and the United States.</p> <p>e. authorization of the surveys of reserves pursuant to the <i>Indian Act</i>.</p> <p>f. receiving notice from a Canada Lands Surveyor prior to that Canada Lands Surveyor entering upon a permit area, lease area or development structure for the purpose of making a legal survey or other positional surveys pursuant to the Canada Oil and Gas Land Regulations.</p> <p>g. making regulations authorizing for any particular purpose the use of a unit of measurement that is not otherwise authorized in the <i>Weights and Measures Act</i>.</p> <p>h. giving approval to the cancellation in whole or in part or amendments or alterations to a plan of survey filed or registered in the Yukon Land Titles Office.</p> <p>i. granting exemption from the statutory reservation to the Crown of a strip of land one</p>	<p>2 marks each = 20</p>	

	<p>hundred feet in width from a grant of Yukon territorial lands where the land extends to the shore of any navigable water or an inlet for it, pursuant to the <i>Territorial Lands (Yukon) Act</i>.</p> <p>j. the administration, direction and control of surveys under the <i>Canada Lands Surveys Act</i>.</p>		
3	<p>Official <u>plans</u> prepared in accordance with the <i>Canada Lands Surveys Act</i> contain certain standard statements in the legend to aid the reader in understanding the information shown in the body of the plan. Write such a statement for each of the following circumstances of survey, adding fictitious details as necessary.</p> <p>a. units of length for an official plan of the survey of a remote wilderness lodge site in the Northwest Territories.</p> <p>b. bearing derivation for the survey described in a. above where a solar observation was made to orientate the survey.</p> <p>c. bearing derivation for a survey within the Whitehorse Coordinated Survey Area, UTM Zone 9.</p> <p>d. markings on monuments placed.</p> <p>e. bearing derivation for an explanatory plan of a buried fibre optical cable duct easement which crosses three adjoining subdivisions each with bearings referred to a different meridian.</p>	3 3 3 3 3	
4	Name five different types of official monuments and the authorized abbreviation for each for use in field notes and official plans.	10	
5	<p>You have been engaged by Parks Canada to make resurveys of 35 National Historic Site properties in the Klondike National Historic Site in Dawson City, Yukon. The original surveys of the Townsite of Dawson and several Additions to it were made during the years 1899 to 1902. Several floods and fires as well as construction in the intervening years has significantly obliterated the original survey fabric of wooden posts with the exception of random blocks and lots which have been remonumented since the 1950's based on location and analysis of some remaining original posts.</p> <p>In order to complete the required surveys, it will be necessary to reconstruct the block outlines of most of the populated townsite where almost all lots are privately owned residential and commercial properties. This will necessitate the excavation and searches for original and more recent monumentation. The surveys will be conducted under the <i>Canada Lands Surveys Act</i> and the <i>Land Titles Act (Yukon)</i>.</p> <p>Write in final form the notice of the impending survey work and potential disturbance of private properties which will be distributed to registered owners and occupants of the townsite areas involved.</p>	7	
6	<p>a. The elevation scale factor at a particular survey location in Nunavut is 0.99950; the UTM grid factor for the location is 0.99965. The mean sea level length of a measured boundary is 1,955.26 m. Calculate the value of this distance to be used in computation of UTM coordinate values to be shown on a plan of survey conducted pursuant to the Canada Oil and Gas Land Regulations.</p> <p>b. State the coordinate axes of a UTM zone.</p> <p>c. What is the UTM easting value, in metres, on meridian 105° west longitude?</p>	4 2 2	
	Total Marks:	100	