ASSOCIATION OF CANADA LANDS SURVEYORS - BOARD OF EXAMINERS
WESTERN CANADIAN BOARD OF EXAMINERS FOR LAND SURVEYORS
ATLANTIC PROVINCES BOARD OF EXAMINERS FOR LAND SURVEYORS

SCHEDULE I / ITEM 6 **March 2004**

MAP PROJECTIONS AND CARTOGRAPHY

Note: This examination consists of 8 questions on 1 page.

Time: 3 hours

Q. No		Marks Value	Marks Earned
1	Different countries use different map projections. How does this fact relate to the shape of countries?	15	
2	Knowing that the scale factor for the central meridian of a 6° TM (Transverse Mercator) map is 0.9996 while it is 0.9999 for a 3° TM map, which map allows for more accurate distance measurements without mathematical correction (both projections are secant)? Explain why.	10	
3	Indicate in a matrix, for each of these visual variables (color, size, orientation, shape), if they can be used properly for the nominal, ordinal, interval and ratio scales of measurement. (visual variables = X axis; scale = Y axis)	16	
4	Describe the National Topographic System used to index map sheets in Canada.	4	
5	In numerous books about cartography, you will read that mapping is both a science and an art at the same time. Why?	10	
6	Several GIS packages offer a function called "address matching" or "geocoding". Define what "address matching" is and comment on the mapping precision of a position obtained by typical address matching.	15	
7	What is map generalization? What is it used for? Describe 5 map generalization operators with examples.	20	
8	What is a Geospatial Data Infrastructure? Give one example.	10	
	Total Marks:	100	