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 **October 2004**

MAP PROJECTIONS AND CARTOGRAPHY

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

Time: 3 hours

Q. No		Marks Value	Earned
1	When comparing the size, shape and orientation of British Columbia with the size, shape and orientation of Prince Edward Island, what map projection would you recommend to each of them for 1:10,000 map scales to have minimum distortion? Explain your answer for each province.	16	
2	Give one advantage of: a) secant map projections over tangent map projections, b) conformal projections over equivalent projections, c) polar conic projections over cylindrical projections tangent to the equator, d) 3° Transverse Mercator over 6° Transverse Mercator.	4 4 4 4	
3	The Federal Government uses the UTM projection for topographic maps at the scale 1:50,000. What are the characteristics of this projection: a) planar or cylindrical or conic projection? b) tangent or secant to the ellipsoid? c) scale factor at the central meridian is 0.9996 or 1.0000 or 1.0004? d) normal or transverse or oblique projection? e) X value at the central meridian is 0 m. or 304,800m. or 1,000,000 m.?	2 2 2 2 2	
4	Describe the National Topographic System used to index map sheets in Canada.	4	
5	It is common to hear that "every map lies". Please explain why.	10	
6	What is toponymy? Who is in charge of it? What issues does toponymy bring to mapping?	14	
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	