CANADIAN BOARD OF EXAMINERS FOR PROFESSIONAL SURVEYORS
ATLANTIC PROVINCES BOARD OF EXAMINERS FOR LAND SURVEYORS

SCHEDULE II / ITEM 5   **March 2007**

LAND INFORMATION SYSTEMS

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

Q. No	Time: 3 hours	Value	Earned
1	Explain the difference between spatial information systems, geographic information systems, and land information systems, if any. What is special about these systems in comparison with other types of information systems such as accounting/banking information systems?	10	
2	What is the basic difference between "error" and "uncertainty"? Do you agree that a good practice of maintaining high-quality geospatial data is to totally eliminate errors?	12	
3	What is "topology"? Using a simple diagram, explain the three basic types of topological relationships in geographic data representation. Briefly discuss the pros and cons of building topology into geographic data in terms of data storage, database creation and data retrieval and analysis.	14	
4	What is an entity-relationship data model? How is it used in the design of a LIS database? How is it different from a relational data model?	13	
5	What is address geocoding? Briefly explain the challenges in dealing with address geocoding, and describe two applications to which address geocoding is an important process.	12	
6	You are leading a team to implement the first LIS in your organization. Briefly describe the steps of evaluating and selecting a suitable GIS software package for your implementation.	15	
7	Briefly describe the contents of a metadata standard, and explain how the metadata standard helps the LIS data sharing over the Internet.	12	
8	How does "data transfer without a common transfer format" differ from "data transfer with a common transfer format"? Why is it so difficult to develop a universally acceptable standard for data interchange?	12	
	Total Marks:	100	