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

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SCHEDULE II / ITEM 5   **October 2008**

LAND INFORMATION SYSTEMS

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Note: This examination consists of 9 questions on 1 page.   **Marks**

Q. No	Time: 3 hours	Value	Earned
1	What are the differences between LIS and GIS? In what ways are LIS and GIS different from other classes of information systems such as accounting, banking systems?	5 5	
2	Discuss the implications of datum changes to LIS databases, particularly when a geocode, such as the position of the centroid of a land parcel, has been used to uniquely identify the parcel.	5	
3	What is "topology"? Using a simple diagram and table schemes show how topological data can be stored in a relational database. Why do we need to store additional data on topology in a LIS database while the positions of all required features have already been stored?	5 5 5	
4	What are *de facto* and *de jure* standards? **Describe** at least two examples of geospatial standards which fall into each category.	5 5	
5	What are the problems we face when integrating GIS/LIS data from different sources?	15	
6	What are the differences between DEM and TIN-based terrain models? Describe and compare the four commonly-used methods for collecting terrain data.	4 6	
7	With the aid of one or more diagrams, explain the concept and process of geocoding by address matching. What are the major issues and problems encountered in current practices of address matching?	6 6	
8	What is conceptual data modeling? Describe how the entity-relationship (E/R) model is used in conceptual data modeling for building LIS databases. Examples with E/R diagrams are required to facilitate your discussion.	5 8	
9	In your view, what are the major impacts of the Internet on GIS? Categorize and describe the current Internet GIS applications in terms of their functionality and levels of human-computer interaction.	10	
	Total Marks:	100	