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

<div align="center">

SCHEDULE II / ITEM 5   **March 2008**

LAND INFORMATION SYSTEMS

</div>

Note: This examination consists of 9 questions on 1 page.   **Marks**
No calculators allowed

Q. No	Time: 3 hours	Value	Earned
1	A general-purpose database management system (DBMS) is supposed to handle all kinds of data, including spatial data, required in a LIS or GIS. If this is the case, why do we still need to develop specialized GIS software to handle spatial data?	10	
2	Define and explain the differences between "accuracy", "precision", "error" and "uncertainty" in the context of land information systems.	12	
3	Discuss the trade-off between "storing minimum topological relationship in a LIS database" and "computing them on the fly when required". What is the trend? Why is it?	12	
4	What is an entity-relationship (ER) model? How is it used in LIS/GIS database design? Support your answer with examples.	12	
5	Describe in detail the commonly-used methods for collecting terrain data. What are the advantages of storing digital terrain in a TIN rather than in a DEM?	12	
6	What are the major issues and problems in sharing geographic data? Explain the role of standards and metadata in sharing geographic data.	12	
7	Explain the data-related technology issues in LIS/GIS, especially in collecting geographic data using new technologies.	10	
8	"The technology issues of GIS today have not very much to do with the lack of adequacy of technology per se. Instead, they are concerned mainly with the ability of GIS users to evaluate and manage technology". As a GIS/LIS manager, would you agree or not? Explain why.	10	
9	List and briefly explain each of the steps of evaluating and selecting LIS/GIS software	10	
	Total Marks:	100	