

**CANADIAN BOARD OF EXAMINERS FOR PROFESSIONAL SURVEYORS**

**SCHEDULE II / ITEM 5  
LAND INFORMATION SYSTEMS**

March 2009

**Note: This examination consists of 10 questions on 1 page.**

**Marks**

<u>Q. No</u>	<u>Time: 3 hours</u>	<u>Value</u>	<u>Earned</u>
1	Define the following technical terms:		
	a) Address matching	3	
	b) Buffering	3	
	c) Data translator	3	
	d) Feature code	3	
	e) Overlay	3	
2	Write a brief explanation of the advantages and disadvantages of raster and vector data representation in a GIS.	10	
3	In a vector GIS or LIS, how do you determine if a point falls within a polygon? Illustrate with a sketch.	10	
4	What is a TIN? How is it created? What purpose does it serve?	10	
5	What is a relational database? Explain the limitations of conventional, relational DBMS for geospatial data management.	12	
6	With the aid of one or more diagrams, explain the concept and process of geocoding by address matching.	10	
7	What is metadata? Describe major elements normally included in the data quality report as part of the metadata of GIS/LIS datasets (use point form).	8	
8	In a GIS/LIS project, you often have to use data covering two UTM zones. What are the problems that you will expect?	5	
9	What are the major technology issues in GIS implementation?	12	
10	Do you think the merging of GIS and Web map services provided by mainstream IT such as Google and Yahoo will lead to the demise of GIS eventually?	8	
<b>Total Marks:</b>		100	