

CANADIAN BOARD OF EXAMINERS FOR PROFESSIONAL SURVEYORS

C5 – GEOSPATIAL INFORMATION SYSTEMS

March 2018

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

Marks

Q. No

Time: 3 hours

Value Earned

1.	In what ways are GIS different from other classes of information systems?	10	
2.	Describe the map digitizing procedures of converting a paper map into a GIS database with topological data structure.	12	
3.	The relational data model has been the most popular data model for DBMS. Explain, with examples, the relational data model. Show how a relational database can be used to store the spatial and attribute data for land parcels.	12	
4.	What is a digital elevation model and how is it created?	12	
5.	What is raster data and how is it stored in a computer? Describe two methods of compressing raster data.	12	
6.	What are the problems of sharing geographic data? How would a data interchange standard help data sharing?	10	
7.	What technical and non-technical challenges will you be facing if you work as a GIS manager?	10	
8.	Describe each of the following concepts with reference to documenting spatial data quality: positional accuracy, attribute accuracy, logical consistency, and completeness.	12	
9.	What is Open Source GIS? How will this change spatial computing?	10	
	Total Marks:	100	