

CANADIAN BOARD OF EXAMINERS FOR PROFESSIONAL SURVEYORS**C5 – GEOSPATIAL INFORMATION SYSTEMS****March 2025****Note: This examination consists of 10 questions on 1 page.****Marks****Q. No****Time: 3 hours****Value Earned**

1.	Describe the difference between a typical computer-aided-design (CAD) program and a true geographic information system (GIS).	10	
2.	Define the following terms: • Datum • Map projection • Geoid • Georeferencing	12	
3.	Describe at least three technologies that can be used to obtain accurate elevation data for input to a GIS.	10	
4.	Why is metadata important to GIS data?	8	
5.	List the advantages and disadvantages of vector geoprocessing as compared with raster-based methods.	10	
6.	What is "topology"? Using a simple diagram, explain three types of topological relationships in geographic data representation.	10	
7.	Provide an example of a typical point-in-polygon overlay analysis problem. Explain how the overlay works.	10	
8.	What is "geocoding" or "address matching"? Why is the geocoding an important vector geoprocessing function?	10	
9.	What are the main considerations when choosing a GIS software package?	10	
10.	What are the main issues related to the “people” component of a GIS, which need to be considered in operating a GIS?	10	
	Total Marks:	100	