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SCHEDULE I / ITEM 6   March 2006

MAP PROJECTIONS AND CARTOGRAPHY

Note: This examination consists of 8 questions on 1 page.   **Marks**

Q. No	Time: 3 hours	Value	Earned
1	Using a GIS, if you measure a north-south distance of 1 km on a UTM map, right at the center of a UTM zone, and the GIS gives a value with 7 decimals (i.e. 1 000.0000000 metres), how precise would you think this answer is?	10	
2	What are the main map projections used by the federal government in Canada? Describe their characteristics regarding the exactness of distance measurement, area measurement, and angle measurement.	20	
3	How could I modify the map projection used for the 1:50 000 Canadian Topographic Maps to make it more precise when I measure a distance along the central meridian? What impact would it have on the precision of the measured distances elsewhere on a map?	10	
4	What is map generalization? What is it used for? Describe 5 map generalization operators with examples. Why do we hear "every map lies"?	20	
5	Give 5 qualities of a "good map".	10	
6	In an interoperable web mapping environment, how are the map projections taken into consideration? One solution is sufficient.	5	
7	What are the cartographic visual variables? What are the measurement scales? How can you relate the visual variables with the measurement scales (explain and give 3 examples)?	11	
8	What are metadata? Give examples of 5 metadata with regard to map content.	14	
	Total Marks:	**100**	