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SCHEDULE I / ITEM 6   **October 2005**

MAP PROJECTIONS AND CARTOGRAPHY

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

Q. No	Time: 3 hours	Value	Earned
1	Different countries use different map projections. Why?	10	
2	What is map generalization? Give 5 examples of map generalization operations. What impact does it have on spatial analysis?	20	
3	Explain the mapping process that takes place when one measures very precisely the position of several points on the Earth and produces a map with these data.	10	
4	Digital maps provided with GPS-based routing packages are 2D maps. Assuming they calculate distances between the starting point and the destination point using 2D spatial analysis along the proposed route, what errors are included in the value calculated by such software? Explain.	15	
5	What are the visual variables used for thematic mapping? How do they relate to measurement scales of nominal, ordinal, and quantitative data?	15	
6	What are the characteristics of the UTM map projection used by the federal government for topographic maps? (type of projection and constants). What is the precision of a distance measured along the central meridian?	8	
7	What are "conformal" and "equivalent maps? There also exist hybrid projections. Define what a hybrid projection is. Define what an aphylactic projection is.	12	
8	When a client asks you to produce a map for him, what questions would you ask him in order to produce a map that meets his needs?	10	
	Total Marks:	100	