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<table>
<tr><td></td><td align="center">**SCHEDULE II / ITEM 5**</td><td align="center">**October 2006**</td></tr>
<tr><td></td><td align="center">**LAND INFORMATION SYSTEMS**</td><td></td></tr>
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Note: This examination consists of 9 questions on 1 page.   **Marks**

Q. No	Time: 3 hours	Value	Earned
1	Why is it difficult to label whether a piece of software is a GIS or not? What are the differences between a CAD system and a GIS, and between a GIS and a LIS?	15	
2	What are the relative merits and limitations of using raster and vector representations (in terms of data storage, data retrieval, data analysis, etc.)?	10	
3	What is "topology"? Why is the concept of topology important for representing geographic information?	10	
4	A data model is a description of the real world and data modeling is the process that formalizes the description at different levels of data abstraction. Discuss, with examples, three levels of data abstraction and models in GIS/LIS.	12	
5	Are there any differences between a "digital terrain model" (DTM) and (i) "digital elevation model" (DEM) and (ii) "digital terrain elevation data" (DTED)?	8	
6	What is metadata? Why is the metadata important to LIS?	10	
7	How do you "sell" the benefits of GIS/LIS within your organization to gain the support from the management and end users?	10	
8	How have concepts and methods of "enterprise computing" affected LIS/GIS development in recent years?	10	
9	Outline the problems which organizations implementing GIS or LIS may face. Are these problems any different from those associated with other large IT applications? What makes a GIS or a LIS special? (use either GIS or LIS for your discussion)	15	
	Total Marks:	100	