

**CANADIAN BOARD OF EXAMINERS FOR PROFESSIONAL SURVEYORS
ATLANTIC PROVINCES BOARD OF EXAMINERS FOR LAND SURVEYORS**

SCHEDULE II / ITEM 4

March 2008

LAND USE PLANNING AND ENVIRONMENTAL MANAGEMENT

Note: This examination consists of 11 questions on 2 pages.

Marks

No calculators allowed

<u>Q.No</u>	<u>Time: 3 hours</u>	<u>Value</u>	<u>Earned</u>
1	In the textbook <u>Site Planning</u> , authors Kevin Lynch and Gary Hack discuss types of density measures as they apply to their topic. a. Give two examples of physical density measures. b. Give two examples which deal with time and may be a rate.	8	
2	Sound and its transmission are important factors in the development of spaces for human activities. a. List three natural effects which suppress noise sources. b. List three design techniques which can be used to suppress noise sources.	9	
3	a. Define ecology. b. Define angle of repose.	8	
4	List four subsurface conditions which are danger signals calling for a more detailed expert investigation and report.	8	
5	List in point form the main components of an environmental impact statement.	12	
6	Involvement of stakeholders (public, government, special interest groups) is an almost mandatory element of land use planning in today's society. a. List four ways by which information about a proposed project land use can be conveyed to the public. b. List four ways by which public input and feedback can be canvassed.	12	
7	Develop a checklist of site data that will be required to guide the collection of original and existing information.	8	
8	Lynch and Hack suggest certain design parameters. Give the recommended value, and unit of measure where appropriate for: a. the maximum length of a cul-de-sac, b. the outside radius of a cul-de-sac, c. the minimum grade for drainage in planted or broad paved areas, and d. the width of pavement for a minor residential street.	8	
9	Land use activities on ground underlain by continuous or discontinuous permafrost require special attention to avoid damage and maximize ground stability over the longer term. Describe relevant design considerations for the each of the following: a. construction of a winter road for mobilization of a mobile camp, drilling equipment and fuel to a remote mineral exploration site, b. construction of single family residential housing, and c. installation of buried utilities (sewer, water, gas, electrical, telephone, cable) for a residential subdivision development.	9	

10	<p>Surface drainage must be addressed in the development of any site for human activity. Describe some the techniques used to provide adequate drainage for:</p> <ul style="list-style-type: none"> a. a paved employee parking lot for a major industrial plant, b. side ditches for a paved roadway with a longitudinal grade of 9%, and c. backfill and grading of the perimeter of a building foundation. 	6	
11	<p>Post-project abandonment and reclamation commitments have frequently been the subject of intense public and government criticism. One case in point is the former Cyprus Anvil lead-zinc mine in Yukon, at one time the world's largest lead-zinc producer, now abandoned leaving the Canadian taxpayers with a reclamation cost estimated to be in the \$500 million to \$1 billion range. Developers, while supporting the objectives of zero cost end liability for the public, also contend that setting the startup bar too high will discourage financial institutions from backing a project with the resulting loss of direct and indirect employment and sales activity in the service and supply sectors.</p> <p>Discuss some of the regulatory tools for abandonment and reclamation which can be used to strike a balance between risk avoidance and development benefits.</p>	12	
	Total	100	