

**CANADIAN BOARD OF EXAMINERS FOR PROFESSIONAL SURVEYORS**

**E3 – ENVIRONMENTAL MANAGEMENT**

**March 2017**

Note: This examination consists of 5 questions on 2 pages.

<u>Q. No</u>	<u>Time: 3 hours</u>	<u>Marks</u>	
		<u>Value</u>	<u>Earned</u>
1.	<p>The new owner of a property that you are surveying wants to extract the gravel and sand that underlies the land. The area is zoned rural residential and contains numerous hobby farms and is a bedroom community for a nearby mid-sized Canadian city. The local government will consider the application provided the owner conducts a thorough environmental assessment and the results are positive.</p> <p>a) What factors should an environmental assessment cover?</p> <p>b) Consider the top two potential impacts. How could they be mitigated?</p>	5 15	
2.	<p>A major Canadian city contains a wetland that occupies a large area (over 1000 ha). Although it has been subject to some disturbance in the past it is largely natural and it is now essentially a nature reserve with little recreational use. Your realtor friend argues that this land should be converted to housing, given the limited supply of residential land and high costs of purchasing a home.</p> <p>To counter this position, what arguments can you make in support of conserving this area?</p>	20	
3.	<p>Canada recently introduced a carbon tax.</p> <p>a) What is the objective?</p> <p>b) Explain why you think the tax will be effective, or ineffective. Points will be given for knowledgeable and logical answers and not whether you are for or against the tax.</p>	5 15	
4.	<p>A developer in your province wants to convert a 200 ha greenfield area to residential and commercial use. The land is highly variable with a network of natural vegetation, some small streams and wetlands as well as some disturbed areas. Despite vigorous opposition from the local residents (who use the area mainly for dog-walking), the local government seems to be supportive of the rezoning provided 10% or 20 ha is set aside as a park. The developer is willing to hire a qualified consultant to plan the park area(s) but still wants to maximize the number of lots he can ultimately sell.</p> <p>a) What kinds of information will the consultant need to help prepare this plan?</p> <p>b) Write at least 5 rules that the consultant should follow in selecting and delineating the park area(s).</p>	10 10	

5.	<p>Due to habitat loss elsewhere, Great Blue Herons recently established a new and relatively large nesting colony in a grove of trees in a Provincial Park. The environment ministry wants to impose a 200 m buffer around the colony in which there will be no use. The park would have to close several campsites and a very popular beach. Park authorities think 200 m is too much and are pushing for a 50 m buffer.</p> <p>a) What is the purpose of a buffer around a nesting colony?</p> <p>b) What kind of compromise could you suggest? Support your answer.</p>		
		10	
		10	
	<b>Total Marks:</b>	100	