

CANADIAN BOARD OF EXAMINERS FOR PROFESSIONAL SURVEYORS

E3 - ENVIRONMENTAL MANAGEMENT

October 2016

Note: This examination consists of 5 questions on 1 page.

Marks

Q. No

Time: 3 hours

Value Earned

1.	<p>A developer is looking at an area to build a shopping centre that it is underlain by an aquifer on which a number of local residents depend for domestic drinking water. The aquifer is described as ‘vulnerable’ and some wells have shown declining production in recent years.</p> <p>a) What is meant by ‘vulnerable’ in this case?</p> <p>b) How can the developer minimize these effects?</p>	5 10	
2.	<p>A Phase 1 or Stage 1 Environmental Assessment is part of a phased investigation used in some real estate transactions in most provinces.</p> <p>a) Under what conditions is such an assessment required?</p> <p>b) What kind of information is needed to complete a Phase 1?</p> <p>c) What is the difference between a Phase 1 and Phase 2?</p>	5 5 5	
3.	<p>One evening you get into a discussion about the oil sands development in Northern Alberta. As a Professional Surveyor you wish to demonstrate your knowledge of important environmental issues in Canada. Using a logical, organized and balanced approach, discuss the major environmental issues associated with this development. Consider local, national and global scales. (It’s not important whether you support or oppose this project).</p>	20	
4.	<p>Define the following, and explain why they are important concepts in environmental management:</p> <p>a) riparian;</p> <p>b) species at risk;</p> <p>c) turbidity;</p> <p>d) carbon capture and storage;</p> <p>e) NOx.</p>	5 5 5 5 5	
5.	<p>A Canadian City is planning to rezone a sparsely populated area to allow for more commercial and industrial land use. However the area lies within a watershed of an urban stream that has an important but declining fish population. Biologists have determined that high stream temperatures and reduced spawning and rearing habitat are the main causes for the decline. Discuss some of the ‘best management practices’ that can be applied to limit further impacts to water temperature and fish habitat.</p>	25	
Total Marks:		100	