

November 2009 Professional (GIM) Examination

Question 1

(9 marks)

Your firm has been awarded a contract for a large dam and associated hydroelectric generating station. Prior to the commencement of field work, a health and safety meeting must be held.

- a) Prepare an agenda for this meeting
- b) Who will attend?
- c) List five site specific hazards, and how will they be addressed.

Question 2

(8 marks)

You are an Ontario Land Surveyor working for an established firm. You find that one of the principals of the firm is cutting corners and not performing proper work. You have serious concerns that his work is substandard and may not comply with the Standards.

- a) How would you deal with the situation? (2 marks)
- b) Would your response differ if the member was a local competitor? If so, how? (2 marks)
- c) If the Association of Ontario Land Surveyors became involved, what processes are available? (4 marks)

Question 3

(10 marks)

There are two AOLS committees that deal primarily with the education of surveyors.

- a) Name them. (2 marks)
- b) Under what authority are they created and are they mandatory? (4 marks)
- c) What is the primary focus of each committee? (4 marks)

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Question 4

(15 marks)

A potential client contacts you, as an OLS, requesting a proposal for providing Geographic Information Management services.

Prepare a typical business letter to the client confirming his request.

As this letter will form the sole business agreement, be sure to address all matters pertinent to a good business contract.

NOTE: Marks will be only given for business/contract issues, so be brief in describing the actual survey work. Do not do a cost estimate, just insert a dollar figure.

Do not sign the letter.

Question 5

(15 marks)

Proposed changes to the Surveyors Act and Regulations will establish a Peer Review Process for Certificate of Registration holders.

- a) Outline why standards should be set for your discipline. (5 marks)
- b) List the framework/headings, under which standards should be developed noting in each instance, whether the standard should be a permissive or mandatory standard. (10 marks)

(Remember this is an outline and not a complete version of the standards)

Question 6

(4 marks)

As a Certificate of Registration member and an owner of a non-cadastral business:

- a) What are the minimum insurance requirements? (2 marks)
- b) What would you recommend for insurance (types, term)? (2 marks)

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Question 7

(11 marks)

What are your responsibilities and/or liabilities as an owner of a non-cadastral survey firm in the following situations?

- a) An employee is injured on the job. (3 marks)
- b) An owner of a Cadastral Survey firm offers you a commission for any work you send their way. (3 marks)
- c) A municipality contracts you to establish a new GIS for them. They refuse to pay because your product doesn't provide the information they expected it would. (5 marks)

Question 8

(18 marks)

A Geographic Information System is generally composed of Spatial Data and Attribute Data that are georeferenced or mapped to a common referencing system.

Spatial Data:

- a) What are the 3 basic types of Spatial Data models? (3 marks)
- b) What are the advantages/disadvantages of the two primary models and provide examples of the types of information that are best suited for each? (4 marks)
- c) What are topological models and the associated advantages/disadvantages for analyzing data? (2 marks)

Attribute Data:

- a) Describe 3 types of attribute data models. (6 marks)

Mapping:

- a) What are the primary differences between the NAD27 and NAD83 datums? (2 marks)
- b) What is the difference in length of a 1000 metre horizontal ground distance at sea level along the central meridian on a UTM projection? (1

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mark)

Question 9

(5 marks)

As a Certificate of Registration member in Geographic Information Management, write a letter to a client responding to a request to include a cadastral survey as part of a multi-faceted survey project that you are conducting.

Do not sign the letter.