



PROFESSIONAL WRITTEN (GIM) EXAMINATION
Friday, November 26th, 2010
9:00AM – 1:00 PM

TIME ALLOWED:	Four (4) hours
# OF QUESTIONS:	Ten (10)
TOTAL MARKS:	100
PASS:	65%

INSTRUCTIONS

Note: This is a closed book examination. No aids are allowed.

1. There are ten (10) questions. Please ensure that you have a complete copy of the examination.
2. Note the number of marks for each question before compiling your answers and allocate your time accordingly.
3. Place your exam registration number at the top right-hand corner of **each page** of your answers and on the front of each booklet. **DO NOT** write your name on or in the book(s).
4. Each answer must begin on a new page, however questions may be answered in any order.
5. Reference each response to its question number, including subsection.
6. Write only on the right hand side of the examination book. You may wish to use the left (unruled) side for calculations, etc., however anything written on the unruled side will not be considered during marking.
7. Do not write in pencil.
8. This examination must be returned to the invigilator with your answer book(s).

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Question 1

(5 marks)

Amendments to the Occupational Health & Safety Act that took effect in June 2010 require that every employer prepare and maintain a workplace violence policy and a workplace harassment policy. In addition, programs are required to be developed and maintained by the employer to implement these policies.

Upon receiving your commission as an OLS, you are hired to manage an office of 15 employees. With reference to the above Act, identify the items that shall be included in a workplace violence program and a workplace harassment program.

Question 2

(15 marks)

The Association of Ontario Land Surveyors is referred to as a "self-governing body."

- a) Explain what is meant by self-governing. (4 marks)
- b) What are the obligations of our self-governing body? (4 marks)
- c) Briefly describe seven items in the Surveyors Act that help to ensure that the public is served and/or protected by our Association. (7 marks)

Question 3

(6 marks)

The recently revised Performance Standards for the Practice of Professional Land Surveying (Regulation 216/10) now includes a section (Part VI) on Geographic Information Management. Describe three of the elements from that section that must be included in the project design and implementation of a GIM project. (2 marks each)

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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)

- a) Define the legal/business term "contract". (2 marks)
- b) What are the key elements of a binding contract? (7 marks)
- c) There are a number of methods for billing and estimating a contract. Identify three methods and briefly discuss the merits of each. (Advantages / disadvantages) (6 marks)

Question 6

(5 marks)

Discuss the differences in transforming between (i) NAD27 and NAD83 (adopted) and (ii) NAD83 (CSRS) and WGS84

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Question 7

(7 marks)

According to the recently (December 15, 2009) amended *Surveyors Act*:

- a) Who may apply for a Certificate of Authorization? (3 marks)
- b) Describe two options that the Complaints Committee has in issuing a decision. (2 marks)
- c) What are the requirements for publication of a decision of a Discipline Panel? (2 marks)

Question 8

(10 marks)

You represent a Municipal organization that has ownership and copyright of current topographic mapping and have been approached by several major utility companies interested in having access to this data.

Prepare an outline for a data sharing agreement.

Question 9

(15 marks)

A Geographic Information System is generally composed of Spatial Data and Attribute Data.

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)

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Question 10

(7 marks)

Metadata is an important component in the management and sharing of Spatial Data.

- a) Define the term Metadata. (1 mark)
- b) What format is generally used for the distribution of Metadata? (1 mark)
- c) What are some of the more common Metadata standards? (2 marks)
- d) List at least 3 key categories or components common to these Metadata standards. (3 marks)