



**PROFESSIONAL (PHOTOGRAMMETRIC) EXAMINATION**

**Friday, May 28, 2004**

**9:00AM**

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**TIME ALLOWED:**            **Four (4) hours**

**# OF QUESTIONS:**        **Nine (9)**

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**INSTRUCTIONS**

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

1. There are nine (9) 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. **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).

**TOTAL MARKS:            100**  
**PASS:                        65%**

**Question 1**

**(13)**

A client retains you as an expert witness to contest the accuracy of mapping information. The mapping was used to accurately plan and design a bridge over a ravine. The topographic mapping was prepared from aerial photography acquired 10 years prior to its use. Write a letter to your client outlining what investigations you would undertake to determine the accuracy of the mapping. (13 marks)

**NOTE: (Do not sign the letter.)**

**Question 2**

**(13)**

Client A retains your firm for a fee of \$100,000 to map a 65km proposed pipeline route. The client signs and returns your proposal letter together with a retainer of \$15,000. You hire a sub-contractor to fly the project for a fee of \$10,000 and you proceed to map the project. You have the mapping 90% complete when the client calls and says, "the proposed pipeline is financially unviable and consequently we are cancelling the project. Please stop work as we are unable to pay you any more money".

- i.) What are your options and probable success at securing payment? (5 marks)
- ii.) Assuming the \$15,000 retainer is the only money you receive, discuss your liability to the flying sub-contractor. (3 marks)
- iii.) Three years later, another company wants to investigate the viability of this same possible pipeline route. Discuss the issues of ownership of the products and materials including the right to use the air photos to complete the mapping. What financial estimate would you give client B. (5 marks)

**Question 3**

**(15)**

A municipality retains you to assist in the authoring of a mapping tender document. This tender is to topographically map the municipality at 1:10000 scale from aerial photography. Prepare a list of at least fifteen (15) contractual specifications to be included in the document. (1 mark each)

**Question 4**

**(10)**

Your client has requested 1:500 photogrammetric mapping be acquired for a 10km stretch of highway in an urban area. In point form, list the components of the photogrammetric processes required to produce a base map for the client. (10 marks)

