Sample quiz header and problems:

Some people do not read quiz instructions, either because they are worried about time, or because they are barely conscious immediately after entering the room for the test. It would be more productive to relax, take a deep breath and start the quiz in good spirits, but not everyone can do it. So here is the actual header from the quiz. Please read the instructions carefully before the quiz.

Below the sample header you may find some sample problems if I have time to compose some. The number of problems below is in no way indicative of the length of the actual quiz. Moreover the actual quiz will be multiple choice, though the problems below (if any) need not be.

Mth 306 Quiz | **Name:** **ID:**

Bent Petersen `306w2005-test.tex` Wed May 4 2005 Time: 50 minutes.

Instructions: $\Longrightarrow$
If you do not read the instructions, then how will you know what to do? Read them now.

Be sure to enter all required information on the scantron and on this test.

Section Number: 001
Form Number: 001

- *This test is a multiple-choice test. You must turn in both the test and the scantron. Your name must be on the scantron and on the test.*
- *You must mark your answer on the provided scantron. Fill in the appropriate bubbles on the scantron very carefully.*
- *You may use one 8.5×11 inch note sheet prepared in advance. You may write on both sides of your note sheet.*
- *Note sheets may not be shared. If you do not bring a note sheet you will have to do without any help notes.*
- *You may not use any books, notebooks, additional note sheets nor note cards.*
- *You are expected to have a simple scientific calculator available for use on this test. Calculators and other equipment may not be shared.*
- *You may use a simple graphics calculator but not a laptop computer nor any device capable of extensive symbolic manipulation (other than your own brain).*
- *There are 10 multiple-choice problems worth 8 points each.*

Important Notes:

- Note that $\log(x)$ means the *natural logarithm* of x, sometimes denoted by $\ln(x)$. The logarithm with base 10 will be denoted by $\log_{10}(x)$, the logarithm with base 2 will be denoted by $\log_2(x)$, and so on.
- If you are taking this test in the Mathematics Learning Center you will not need a scantron. Just be sure to write the letters corresponding to your answers in the boxes provided below.

Problem 1. Write as a rational fraction $0.\overline{93}$

A.) $\frac{31}{33}$ **B.)** $\frac{93}{100}$

C.) $\frac{92}{99}$ **D.)** $\frac{93}{100}$ **E.)** None of the foregoing.

[ ] ←*Write letter corresponding to your answer here and mark it on the scantron (Problem 1).*

Problem 2. Sum the series

$$\sum_{n=0}^{\infty} (-1)^n \frac{2^n\, 3^n}{5^{2n}}.$$

A.) $19/25$ **B.)** $25/19$

C.) $31/25$ **D.)** $25/31$ **E.)** None of the foregoing.

[ ] ←*Write letter corresponding to your answer here and mark it on the scantron (Problem 2).*

Problem 3. Sum the series

$$\sum_{n=1}^{\infty} \frac{2n+1}{n^2\,(n+1)^2}.$$

A.) 1 **B.)** 2

C.) 3 **D.)** 4 **E.)** None of the foregoing.

☐ ←*Write letter corresponding to your answer here and mark it on the scantron (Problem 3).*

Problem 4. The series

$$\sum_{n=1}^{\infty} \left(1-\frac{1}{n}\right)^n$$

A.) converges, but only condionally **B.)** converges absolutely

C.) diverges **D.)** impossible to tell **E.)** None of the foregoing.

☐ ←*Write letter corresponding to your answer here and mark it on the scantron (Problem 4).*

Problem 5. The series

$$\sum_{n=1}^{\infty} \left(1-\frac{1}{n}\right)^{n^2}$$

A.) converges, but only condionally **B.)** converges absolutely

C.) diverges **D.)** impossible to tell **E.)** None of the foregoing.

☐ ←*Write letter corresponding to your answer here and mark it on the scantron (Problem 5).*

Problem 6. Find the sum of the series

$$\sum_{n=3}^{\infty} (-1)^n\,\frac{3^n}{4^n}.$$

A.) $4/7$ **B.)** $7/4$

C.) $-72/112$ **D.)** $72/112$ **E.)** None of the foregoing.

☐ ←*Write letter corresponding to your answer here and mark it on the scantron (Problem 6).*

Problem 7. The series

$$\sum_{n=4}^{\infty} \frac{1}{n\log^{1.5}(n)}$$

A.) diverges **B.)** converges

C.) impossible to tell **D.)** is blue **E.)** None of the foregoing.

☐ ←*Write letter corresponding to your answer here and mark it on the scantron (Problem 7).*
