**Online Trigonometry Final Exam Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Directions: You may use your textbook, notes and calculator to complete this test. The time limit for this exam is 2 hours. This test must be completed and returned by Monday, December 12, 2011 along with your completed course project.**

1. **Evaluate the following using the Unit Circle:**
2. **Use your calculator to evaluate the following:**
3. **Complete the following Pythagorean Identity: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
4. **List the Power Reducing Formulas for sine and cosine.**
5. **Simplify the following trig expression completely:**
6. **Use the difference formula for Sine to simplify the following expression completely:**
7. **Find two values of between 0 and 360 degrees such that cos .**
8. **Find two values of between 0 and 360 degrees such that tan .**
9. **Find the distance across the swamp by solving problem 41 on page 213.**
10. **Find the exact value of for the triangle shown on page 213, problem number 42.**
11. **Prove the following identity:**
12. **Solve the following equation for all solutions in the interval :**

1. **Solve the following equation for all solutions in the interval :**

**(14)**

**Given a triangle with angle , angle , and side units, use the Law of Sines to find the length of side b.**

**(15)**

**Use the Law of Cosines to find angle A for a triangle with sides and**

**c = 72.**