**Mathematics 3200: Unit 6 Assignment**

**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Part A: Selected Response:** Place the letter of the correct response in the space provided

\_\_\_\_\_ 1. What are the non- permissible values for *x* for the equation ?

A)  B) 

C)  D) All real values are permissible

\_\_\_\_\_ 2. What is the simplified form for ?

A)  B) 

C) 0 D) 

\_\_\_\_\_ 3. What is the exact value of ?

A)  B) 

C)  D) 

\_\_\_\_\_ 4. Which is the simplified form of the trigonometric expression ?

A)  B) 

C)  D)

\_\_\_\_\_ 5. Given that , where , what is the exact value of ?

A)  B) 

C)  D) 

\_\_\_\_\_ 6. Solve:  where ?

A)  B) 

C)  D) no solution

\_\_\_\_\_ 7. Which is the simplified form of the expression ?

A)  B) 

C) 1 D) 

\_\_\_\_\_ 8. Which is the simplified form of the trigonometric expression 

A)  B) 

C)  D) 

\_\_\_\_\_ 9. What is the exact value of  if  and 

A)  B) 

C)  D) 

\_\_\_\_\_ 10. Which is the simplified form of the trigonometric expression?

A)  B) 

C)  D) 

\_\_\_\_\_ 11. What is the exact value of ?

A) B)

C) 0 D) undefined

\_\_\_\_\_ 12. In which step is there an error when simplifying the expression ?

Step 1:

Step 2:

Step 3:

Step 4: –tan2x

A) Step 1 B) Step 2

C) Step 3 D) Step 4

**Part B: Constructed Response:** Show workings to receive full marks.

13.  and  are both in Quadrant II,  and . Determine the exact

value of . (3 marks)

14. Verify each trigonometric identity: (8 marks)

A) B) 

15. Solve:  where  (4 marks)